



~~1194~~

$\frac{S}{67}$

~~4699~~





~~494~~
~~4699~~

$\frac{5}{67}$

MONEY AND BANKING





MONEY AND BANKING

RAYMOND P. KENT, *Ph.D.*

Associate Professor of Finance
University of Notre Dame



RINEHART & COMPANY, INC.
PUBLISHERS NEW YORK

First Printing *February, 1947*
Second Printing *August, 1947*
Third Printing *February, 1948*
Fourth Printing *September, 1948*

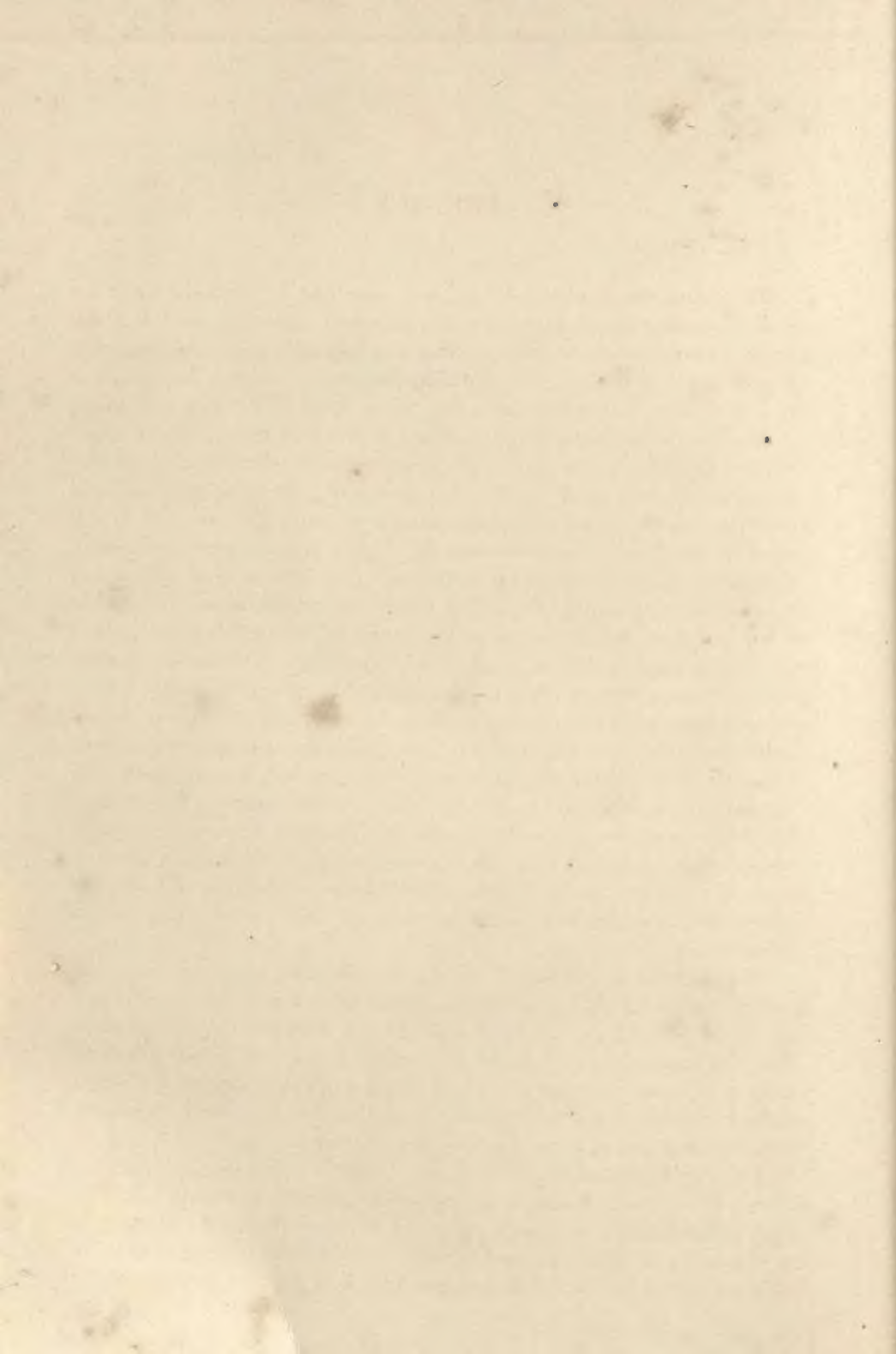
WILLIAMS, J. J.
26,92008
13665

Copyright, 1947, by Raymond P. Kent

Printed in the United States of America
by J. J. Little and Ives Company, New York

ALL RIGHTS RESERVED

To My Wife





PREFACE

In writing this textbook, I have had constantly in mind the particular needs of undergraduate students at the college or university level. For that reason, I have tried to maintain a reasonable balance between the discussion of monetary and banking theory, on the one hand, and the description of the organization and operations of the various kinds of banking institutions, on the other; in this respect, I have striven to avoid the more complex refinements of theory which would be of special interest to the advanced student, as well as the less significant details of bank organization, operation, and regulation which are of immediate concern to those who are actively engaged in the diverse phases of banking. I have given a generous amount of space to recent developments in theory, in the operation of the various classes of banking institutions, and in legislation, but I have sought to avoid an overemphasis which might be the source of misunderstanding, for I realize that what is close at hand often seems much more important than what is remote, though it later turns out not to be so. Especially have I attempted to emphasize the far-reaching effects which are involved in the establishment of particular monetary standards, the profound significance of the role of the commercial banks as our chief money-creating institutions, the power and responsibility of the federal reserve authorities to control the volume of money in circulation, and the important bearing of the fiscal operations of the federal government upon monetary and banking developments. If a student clearly understands these four phenomena when he has finished his course in money and banking, he will, I think, have accomplished much.

The textbook is adaptable, I believe, for courses running for either one or two semesters. For shorter courses, doubtless, certain of the chapters will have to be omitted so that more concentrated attention may be given to those which are selected for study and discussion. It would be presumptuous on my part, however, to suggest which chapters might be deleted and which retained; the instructor will be able to make a suitable choice depending upon the objectives of his course and other circumstances.

I am greatly indebted to Professor Lester V. Chandler, of Amherst College, for the many excellent suggestions he gave me following a reading of an early draft of the manuscript; to Professors Walter A. Morton, of the University of Wisconsin, and Leonard L. Watkins, of the University of Michigan, whose analyses and criticisms of a later draft of the manuscript

were of inestimable advantage in the preparation of the final revision; to Professor Francis J. Calkins, of Marquette University, who pointed the way to the improvement of the several chapters which he read; and to Professor LeClair H. Eells, my colleague at Notre Dame, who was very generous at all times in discussing many of the complex problems of content and organization which arose during the writing. I am also deeply obligated to many of my former students at Notre Dame who used various preliminary versions of the textbook in class and who were by no means reticent in telling me how, here and there, I could do a better job. Finally, I am happy to acknowledge my deep indebtedness to my wife for constant encouragement and for much material assistance, particularly in the proofreading.

R. P. K.

Notre Dame, Indiana
December, 1946

CONTENTS

Part I: MONEY

CHAPTER	PAGE
1. The Nature of Money	3
2. Domestic Aspects of the Gold Standard	17
3. International Aspects of the Gold Standard	37
4. Other Monetary Standards	50
5. Monetary Standards in the United States	60
6. Banking and Credit	87
7. Bank Notes	101
8. Bank Demand Deposits	115

Part II: COMMERCIAL BANKING STRUCTURE

9. Commercial Bank Organization	137
10. Government Supervision of Banking	158
11. Federal Deposit Insurance	171

Part III: COMMERCIAL BANK OPERATIONS

12. Commercial Bank Statements	185
13. Commercial Bank Transactions	199
14. Primary Reserves	209
15. The Expansion of Demand Deposits	221
16. Loans and Discounts	245
17. Secondary Reserves and the Money Market	265
18. Commercial Bank Investments	281
19. History of Commercial Banking in the United States	290

Part IV: CENTRAL BANKING IN THE UNITED STATES

20. A General Survey of Central Banking	315
21. Origin and Structure of the Federal Reserve System	327
22. Operations of the Federal Reserve Banks	346

Part V: THE VALUE OF MONEY

23. Measurement of the Value of Money	373
24. The Transactions and Cash-Balance Theories	386
25. The Income Theory	399

Part VI: MONETARY POLICY

26. The Scope of Monetary Policy	417
27. Monetary Policy of the Federal Reserve System	433
28. Monetary Policy of the Treasury	452

Part VII: INTERNATIONAL PAYMENT

29. Foreign Exchange: Supply and Demand	469
30. Foreign Exchange: Means of Payment	481
31. Foreign Exchange Rates	499
32. Exchange Control	520
33. International Monetary Reconstruction	532

Part VIII: MISCELLANEOUS BANKING INSTITUTIONS

34. Banking Institutions of the Federal Government	565
35. Banking Institutions for the Consumer	577
36. Banking Institutions for the Saver	599
37. Banking Institutions in the Capital Market	614
38. Banking Institutions for the Farmer	634
39. Banking Institutions for the Builder	656
Index	681

TABLES

TABLE	PAGE
1. Gold Production, Movements, and Reserves of the United States, 1925-1945	78
2. Gold and Silver Monetary Stocks, 1934-1946	82
3. 'Hand-to-Hand' Money in Circulation, Selected Years, 1929-1946	85
4. Demand Deposits of All Banks, 1929-1946	86
5. Check Clearings of the Federal Reserve Banks, 1933-1945	125
6. Banks Not on Federal Reserve Par List, December 31, 1945	130
7. Summary of State Branch-Banking Legislation, August 15, 1939	152
8. Branches of Commercial Banks in the United States, December 31, 1945	153
9. Distribution of Supervisory Powers among Banking Authorities	160
10. Income and Expenses of the FDIC, 1933-1945	175
11. Insurance Coverage of All Insured Commercial Banks, Special Call Dates, 1934-1945	176
12. Summary of Insured Banks in Financial Difficulties, 1934-1945	179
13. Income and Expenses of Member Banks of the Federal Reserve System in 1945	194
14. Ratios of Net Profits to Capital Accounts of Member Banks, 1925-1945	197
15. Profits of Member Banks Classified by Size in 1945	198
16. Distribution of Member Bank Primary Reserves, June 29, 1946	210
17. Member Bank Reserve Requirements since June 21, 1917	216
18. Factors of Increase and Decrease and Member Bank Reserve Balances, 1928-1945	230
19. Excess Reserves of Member Banks, Selected Months, 1934-1946	246
20. Loans and Investments of Member Banks, Selected Dates, 1925-1946	248
21. Average Rates Charged Customers on Commercial Loans, 1928-1945	250
22. Types of Member Bank Loans Outstanding, December 31, 1945	254
23. Interest Rates on Secondary Reserve Investments, Selected Years, 1920-1945	267
24. Money Market Securities Outstanding, Selected Years, 1927-1945	275
25. Growth of State-Chartered Banking, 1837-1862	297

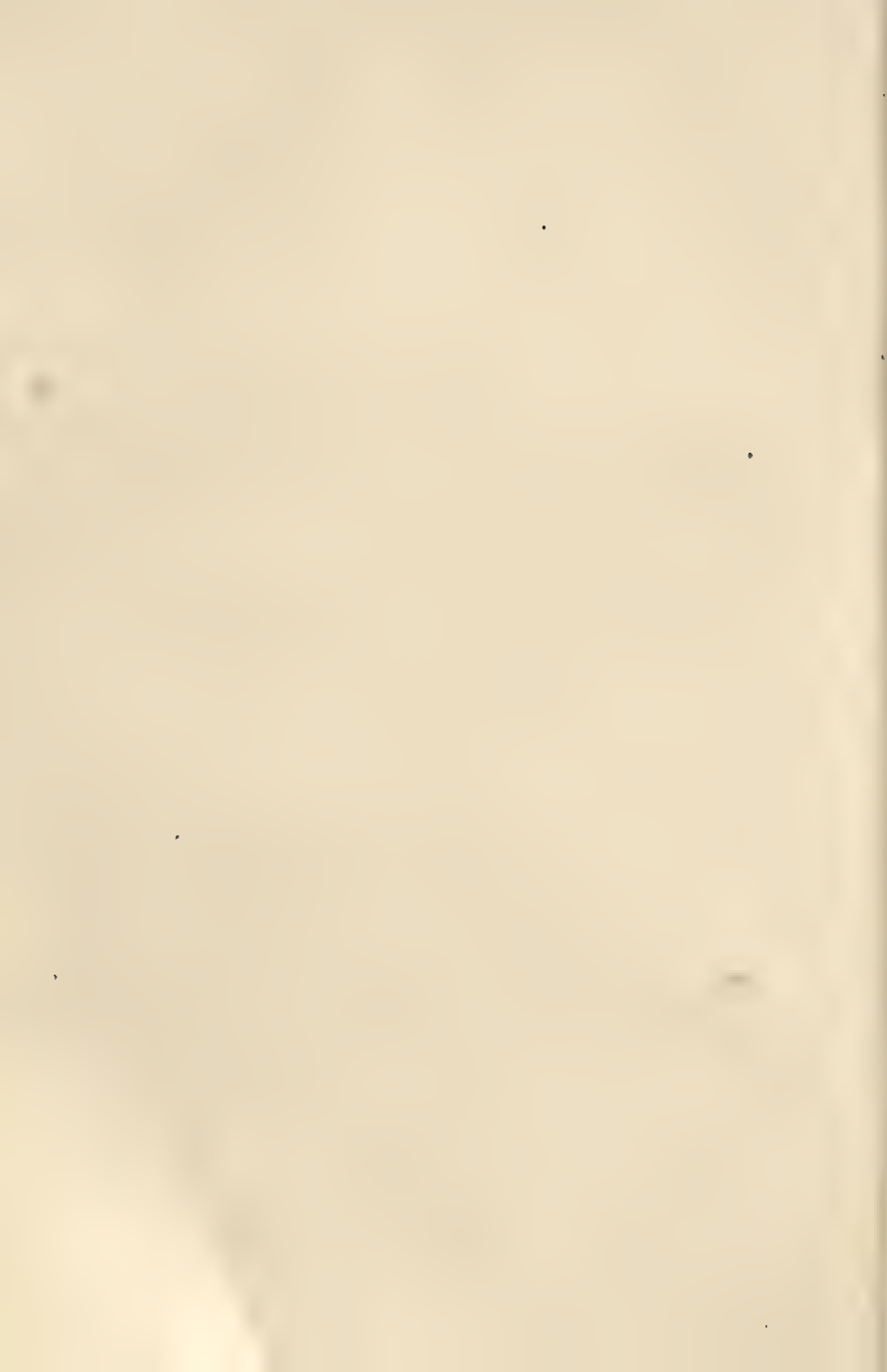
TABLE	PAGE
26. Bank Suspensions in the United States, 1921-1932	304
27. Bank Suspensions in 1933	307
28. Commercial Banking in the United States, 1934-1945	310
29. Number and Deposits of Commercial Banks Suspended, 1934-1945	311
30. Comparative Position of Member Banks, Selected Years, 1914-1945	343
31. Outstanding Discounts and Advances of the Federal Reserve Banks, 1914-1945	347
32. Industrial Loans of the Federal Reserve Banks, 1934-1945	354
33. Treasury Bill Holdings of Reserve Banks under Repurchase Option, 1942-1946	355
34. Discount and Buying Rates of the Federal Reserve Bank of New York, September 30, 1946	356
35. Open-Market Securities Held by the Federal Reserve Banks, 1914-1945	358
36. Statement of Condition of the Federal Reserve Banks, June 6, 1946	367
37. Wholesale Commodity Price Indexes, Selected Years, 1914-1945	374
38. Ratio of Prices Received to Prices Paid by Farmers, 1910-1945	375
39. The Balance of International Payments of the United States in 1940	479
40. Quotas and Voting Power in the International Monetary Fund in March, 1946	541
41. Subscriptions and Voting Power in the International Bank in March, 1946	555
42. Outstanding Loans of Federal Banking Agencies, June 30, 1946	568
43. Assets and Liabilities of the RFC, December 31, 1945	571
44. Short-Term Consumption Credit Outstanding in the United States, 1929-1945	579
45. Installment Loans of Personal Finance Companies, 1929-1945	590
46. Installment Loans of Industrial Banks, 1929-1945	593
47. Outstanding Consumption Installment Credit of Commercial Banks, 1939-1945	596
48. Credit Unions in 1944	597
49. Number and Distribution of Mutual Savings Banks, December 31, 1945	601
50. Loans and Investments of 534 Mutual Savings Banks, December 31, 1945	605
51. Growth of the Postal Savings System, Selected Years, 1911-1945	608
52. Maximum Interest Payable on Time Deposits by Member Banks	612
53. Effective Registrations under the Securities Act, 1934-1945	623
54. Sales on the New York Stock Exchange, Selected Years, 1915-1945	625

TABLES

xiii

TABLE

	PAGE
55. Over-the-Counter Middlemen Registered under the Securities Exchange Act, 1936-1945	632
56. Estimated Farm Mortgage Debt, Selected Years, 1910-1945	636
57. Outstanding Loans of the Farm Credit Administration, December 31, 1945	645
58. Outstanding Mortgage Loans on Nonfarm Dwellings for One to Four Families, 1929-1944	658
59. Number, Membership, and Assets of Savings and Loan Associations, Selected Years, 1914-1945	660
60. Outstanding Loans of Federal Real-Estate Credit Agencies, 1933-1946	666
61. Membership in the Federal Home Loan Bank System, 1935-1946	669
62. Volume of Loans Insured by the Federal Housing Administration, 1934-1945	674



Part I

MONEY

The Nature of Money

Domestic Aspects of the Gold Standard

International Aspects of the Gold Standard

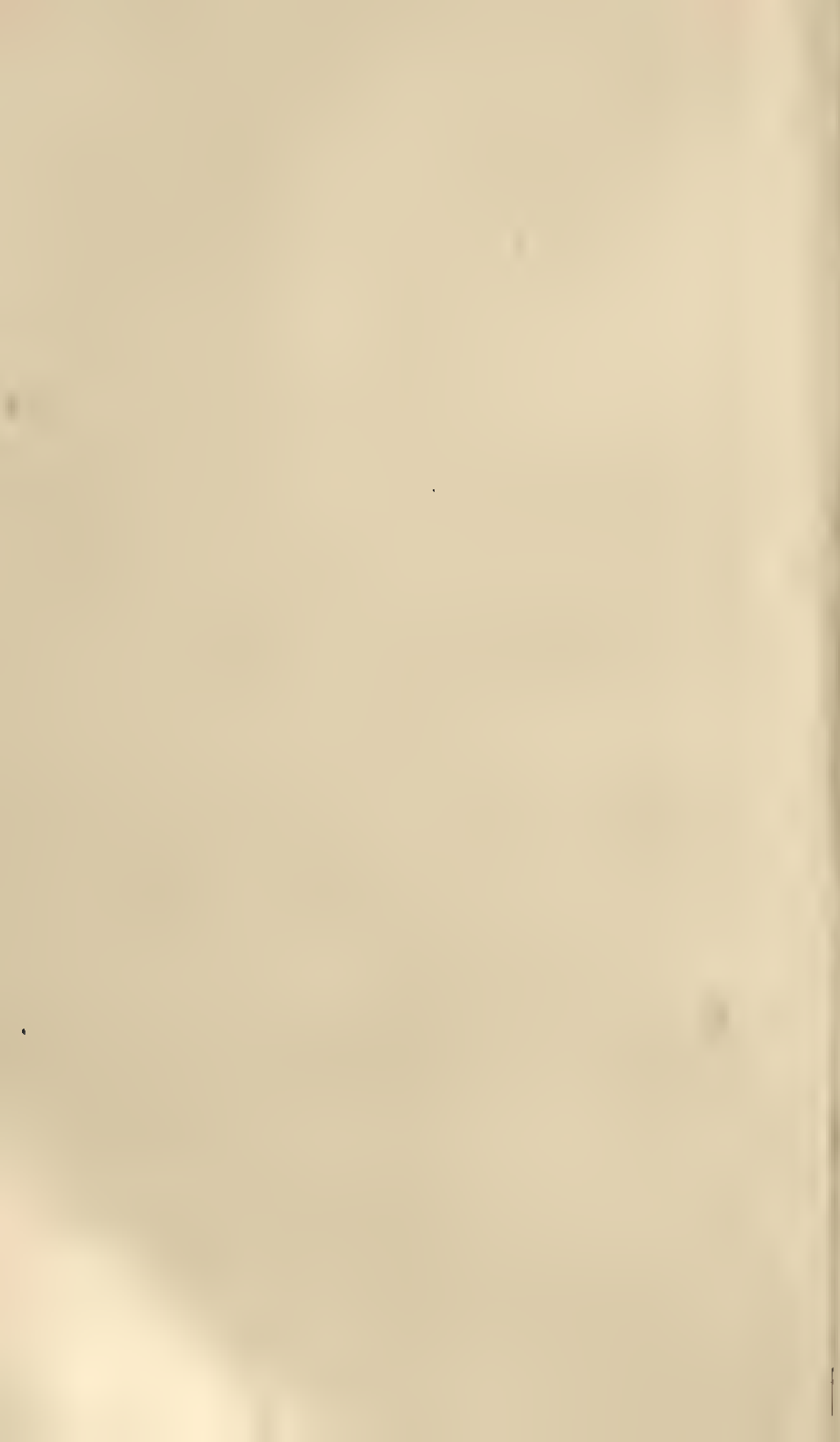
Other Monetary Standards

Monetary Standards in the United States

Banking and Credit

Bank Notes

Bank Demand Deposits



Chapter 1

THE NATURE OF MONEY

Money deserves to be ranked among the outstanding inventions of the entire history of mankind. By overcoming the difficulties of barter, it has made possible a tremendous saving of time and trouble in marshaling productive facilities and in distributing the output of industry to ultimate consumers. The sweeping technological progress of the past two centuries, the specialization of industry, the organization of production upon the basis of a minute division of labor, the establishment of nation-wide and international markets—all would have been greatly impeded if not prevented by the absence of reasonably adequate monetary facilities.

This is not to imply that money is directly responsible for the great productive efficiency and the high planes of living which prevail today in advanced nations, for much obviously depends upon such factors as the natural resources of a country, the composition of the population, the technical skill of a people, and the availability of managerial or entrepreneurial talents. At the least, however, the use of money makes for ease and simplicity in bringing together the factors of production and in organizing markets through which goods may be distributed for consumption.

What Is Money?

Though money is much in our thoughts and though it conditions many of our actions, we encounter great difficulty in attempting to state precisely what it is. Definitions of money are legion, and they vary markedly with the divergent points of view of their authors. Some authorities believe that the term *money* should be restricted to whatever serves as a standard or measure of economic value, and that mediums of exchange should be described by some other term such as *currency*; others do not make a terminological distinction between what serves as a standard of value and what serves as a medium of exchange, but they narrow their definition of money to include only a few instruments; and still others classify as money numerous instruments which serve as standards of value or as mediums of exchange. The indiscriminate use of such terms as *cash* and *credit* adds to the confusion.

DEFINITION

Remembering, then, the tentative nature of a definition which seeks to differentiate a complex concept such as *money* from all other concepts, we shall, for the purposes of this text, regard money as *anything which is commonly used and generally accepted as a medium of exchange or as a standard of value*.

We find it necessary, in the first place, to use the vague word *anything* for the reason that no word of more precise meaning seems to be capable of including all the "things" which have been employed as money in various epochs of human history. We must make allowance not only for the innumerable kinds of commodities which have been used for monetary purposes, but also for many varieties of paper instruments and, as we shall see below, for certain kinds of intangible "rights" such as bank demand deposits.

Second, money is anything which is "commonly used" as a medium of exchange or as a standard of value. Many types of "things" from time to time are used as mediums of exchange, although we do not, merely for that reason, include them as money. If, for example, a person has a quantity of garden produce which he desires to exchange for sugar, he may exchange the produce for eggs which, in turn, he exchanges for sugar at a grocery store. In this instance, the eggs serve as a medium of exchange, but they are not money, because they are not commonly employed in this manner.

Third, money is "generally accepted." In studying the origin and development of money, we discover that commodities which were most highly prized by the mass of people came to serve as monetary mediums. All "things" which are scarce and which have utility or the power to satisfy human wants possess value, and could conceivably be used as money; but there are only a few "things" of which people would be willing to take unlimited quantities in exchange for their own goods.

In the fourth place, money, according to our definition, is used as a medium of exchange *or* as a standard of value. In some periods of world history, cattle, skins, and furs, as well as other bulky commodities, were used as money, but because they were not conveniently divisible, they were employed in many instances merely to measure the value of other goods being exchanged, and the money commodities themselves did not customarily pass from hand to hand.

INCLUSION OF PAPER MONEY AND BANK DEMAND DEPOSITS

The concept *money* includes all kinds of paper instruments which are commonly used and generally accepted as mediums of exchange or as standards of value. Some economists have held that only a commodity money which has value as a commodity equal to its stated or face value is a true money. In their view, all other types of generally accepted mediums merely represent true money or are substitutes for it. Such a proposition narrows the concept of money too greatly, for paper instruments of various kinds

are freely used and commonly accepted without particular regard to the commodity money, if any, which is held in reserve to redeem them. Common usage certainly places government paper money and bank notes in the category of money, and it is desirable to accept that point of view.

Whether bank demand deposits or "checking accounts" should be regarded as money is a question still subject to differences of opinion. Some writers have paid particular attention to the checks which are drawn against demand deposits, and have rightly claimed that they lack the quality of general acceptability. For it is obvious that most people are likely to refuse to accept payment by means of checks unless they are assured of the trustworthiness of the parties who offer them. Nevertheless, if we look beyond the checks, we know that bank demand deposits—claims against the commercial banks—are really the mediums of exchange, and the checks are merely useful instruments by which the rights to the deposits are transferred. In a society in which the nature of bank credit is widely understood, almost everyone is willing to obtain rights in demand deposit accounts; hence, though checks are excluded from the money category, it is not illogical to hold that the demand deposits are generally acceptable and may therefore be regarded as money.¹

The Functions of Money

In speaking of the functions of money, we refer to the services which money performs. The two fundamental or primary functions have been indicated in the definition just presented, namely, the medium-of-exchange and the standard-of-value functions. Other services of money are described as "secondary" functions, because they are dependent upon and clearly subordinate to the primary functions. In a secondary capacity, money serves as a standard of deferred payments, as a store of purchasing power, and as a guarantor of solvency.

Several types of money may be in circulation concurrently, each fulfilling a distinct function. When a government suspends the gold standard and issues excessive quantities of paper money, many values may continue to be expressed in terms of gold, while the paper money is actually used in the exchange of goods. In the American colonies, the most common coins in use were those of Spain and Portugal, particularly Spanish silver dollars or pieces of eight; but records were kept in terms of British pounds, shillings, and pence. For many decades preceding the First World War, the chief coin in Great Britain as a medium of exchange was the gold sovereign, although the standard of value was the pound sterling; in this instance, however, the distinction was purely nominal, as the two units were of identical value. Since 1934 in the United States, the gold dollar has continued

¹ The reasonableness of regarding bank demand deposits as money is discussed further on pp. 115-118.

to serve as a standard of value, although gold does not pass between persons in the domestic exchange of goods.

MONEY AS A MEDIUM OF EXCHANGE

Difficulties of Barter.—The importance of the function of money as a medium of exchange may be readily understood when one considers the difficulties which are encountered in a barter economy. One of the outstanding difficulties originates in the need to establish a direct value ratio between each pair of goods which are offered for exchange. If ten types of goods are to be exchanged among one another, it is necessary to express the value of A in respect to B, of A in respect to C, of B in respect to C, of B in respect to D, and so on—in all, 45 ratios are required. In a money economy, on the other hand, the value of each good is expressed in terms of money as a *price*; in the exchange of ten types of goods, only ten prices are required, for each price makes possible a simple comparison of the value of one good with the values of all other goods.

Other difficulties of barter are usually described as the lack of divisibility in the articles to be exchanged, and the lack of a double coincidence of wants on the part of those who desire to make exchanges. If, for example, a person has a typewriter which he wants to exchange for food, he will be hard pressed to find a grocer who wants the typewriter; and if the owner of the typewriter wants only a limited quantity of food at the moment, he will find it even more difficult to locate a grocer who is both willing to accept the typewriter in return for a small amount of food and, at the same time, willing to give something else to make up the difference.

Generalized Purchasing Power.—When money serves as a medium of exchange, an exchange of goods for goods is broken up into two transactions—goods are given for money, and the money, in turn, is used to acquire other goods. Purchases and sales are substituted for the direct exchanges of a barter economy. A person who possesses one type of goods in a quantity beyond his needs and who desires to acquire goods of other types does not have to seek someone who possesses the desired goods and who is willing to take some of the abundant goods. By selling a portion of the goods which he possesses, the individual acquires money or “generalized purchasing power” which gives him freedom of action with regard to the quantities and qualities of the goods he desires to buy, the time and place of his purchases, and the parties with whom he chooses to deal.

The use of money as a medium of exchange in productive operations is of inestimable advantage. It permits entrepreneurs to concentrate their energies upon the technical problems of their industries—a concentration which makes possible the development of new processes, the improvement of techniques, and a resulting expansion of output. Entrepreneurs need not build houses, accumulate great stores of food, clothing, household furniture, and other consumption goods, and provide service facilities of many kinds

to take care of the physical requirements of their employees; they need not barter their finished goods for new machinery, raw materials, and other supplies; and they need not enter into complex agreements with landlords to give a portion of their output in return for the use of natural resources.

When entrepreneurs pay money wages to their employees, money rents to landlords, money as interest to capitalists, and, as one might say, money profits to themselves, the shares of the factors of production in the output of industry are immediately determined. Theoretically, each factor of production in a capitalistic society receives an amount of money income which measures its marginal productivity, but it is recognized that this principle may not have an exact application in every industrial situation. At any rate, problems of distribution are more easily analyzed when the shares of the factors are stated in monetary terms. Problems relating to the "just wage," equilibrium rates of interest, taxation according to the principle of ability to pay, and the like, would be subject to great confusion if the output of industry were directly distributed among the factors of production.

Those who receive money as rent, wages, interest, and profits in return for their contribution to production have a wide choice as to its disposal. The wage earner, for example, is not assigned to a particular house, whether or not it suits his needs and his desires, nor is he allotted a predetermined quantity of food, clothing, and other goods of a particular description. He is free to determine in what manner the money or "generalized purchasing power" which he receives as wages is to be employed. Though he may have been spending a certain amount for food, another amount for clothing, and other amounts for other commodities and services, he may vary these proportions at any time at his discretion. Moreover, choices may easily be varied within each classification, as when he decides to buy more of one kind of food and less of another.

MONEY AS A STANDARD OF VALUE

Measurement of Economic Value.—As a standard of value, money may be compared with other units of measurement. It is employed to measure and compare economic values, just as gills, pints, quarts, and gallons are used to measure quantities of liquids, and as inches, feet, yards, rods, and miles are used to measure distances. Economic values represent the capacity of goods to command other goods in exchange, and, as we know, they are stated in monetary terms as prices. We do not say that a bushel of wheat is equivalent to three pounds of butter, to four dozens of eggs, to a shirt of a certain quality, or to the privilege of riding in a railroad train for seventy or eighty miles. Rather, we say that wheat is worth \$2.40 per bushel; butter, 80 cents per pound, and so on. The relationship between the value of one good and of all other goods may thus be easily ascertained, just as the relationship between two distances may be readily understood if we say that one is forty feet and another is sixty yards.

In view of the fact that money is the language in which economic values are expressed, the significance of the standard of value in a system of free enterprise is immediately apparent. Because the price system is the means by which the multifarious activities of a free economic society are coordinated, the adequacy of the money-language is of paramount importance. Any situation or event which tends to reduce the money-language to a Babel or "confusion of tongues" introduces disturbances in the price system and converts the means of coordination into a source of disorder.

Defective Character of the Standard of Value.—Unlike measures of liquids, distances, areas, and the like which fully satisfy their respective purposes, money as a standard of value is defective. An acre of land in Pennsylvania is of the same dimensions as an acre of land in California, and a gallon of gasoline sold in New York is the same quantity as a gallon sold in Oregon. Not so with money. Although money is used, so to say, as a yardstick to measure the value of all goods, the length of the yardstick itself varies from time to time. It is as if a true yardstick were at one time 36 inches in length; at another, 32 inches, and at another, 45 inches. Variations in the length of the money yardstick are seen in changes in the general price level, and we know from experience that a concerted rise or fall of the prices of goods in general tends to take place continuously.

The reason why money fails to serve perfectly as a standard of value is found in the fact that the standard-of-value function is inextricably bound up with the medium-of-exchange function. The standard of value does not remain an abstract concept as does a "gallon," an "acre," or a "mile," but it takes concrete form as mediums of exchange or it is directly related to the mediums of exchange. The concept of a "dollar," for example, may at first instance be abstract, but it becomes concrete when we say that a dollar is equivalent to 13.714 grains of fine gold and when we coin lumps of metal and print pieces of paper and call them "dollars." Regardless of the number of containers for the holding of liquids we manufacture or destroy, a gallon still designates a specific volume of liquid; but if we increase or decrease the quantity of dollars in circulation, the importance—that is, the purchase power—of each dollar is likely to be affected, which is to say that the value of goods in terms of dollars is likely to vary. It follows, of course, that the more the purchasing power of money is subject to instability, the less adequate is money as a standard of value.

Application of the Standard of Value.—So closely intertwined are the functions of money as a medium of exchange and as a standard of value that it is often difficult to determine where one leaves off and the other begins. As a matter of fact, money is not used as a medium of exchange until the goods involved in a transaction have been evaluated in terms of money. Thus money usually functions as a medium of exchange and as a standard of value more or less simultaneously.

But on many occasions money is used as a standard of value though no

exchange of goods for money takes place. If a farmer wants to exchange some eggs for sugar at a grocery store, the value of each commodity is expressed in terms of money and the exchange is made, although no money passes from hand to hand. Again, people continually evaluate goods in terms of money when there is no interest whatsoever in exchange. A home owner may say that his house is worth \$8,000, yet he may have no intention of selling it at that price.

Modern business organizations would be seriously handicapped were a monetary unit not available as a standard of value. In the financial statement of a business firm, the worth of the assets and the amount of the liabilities are expressed in terms of money. Land, buildings, machinery, and other permanent assets are declared to be worth so many dollars, although the firm has no expectation of selling them. In this respect, money is frequently alluded to as a "unit of account" or as a "money of account"; but these terms are synonymous with "standard of value." In the absence of money as a standard of value, the business firm, in reporting the state of its affairs, would have to describe its assets in terms of quantities, composition, and other physical characteristics, and the report will be unintelligible to many.

SECONDARY FUNCTIONS OF MONEY

Money as a Standard of Deferred Payments.—The function of money as a standard of deferred payments is closely related to its function as a medium of exchange. Not only are goods given in exchange for money in the present; they are also transferred against promises to pay money in the future. If a dealer in hardware buys a number of stoves on account, he promises to repay his creditor not with stoves but with money. One of the outstanding characteristics of modern economic society is the great aggregate of debts that people owe each other. Bank demand and time deposits, the accounts and notes payable of business firms, the bonds issued by governments, railroads, public utilities, and industrial corporations all represent debts or obligations to pay; and, regardless of what is bought on account or what is borrowed, these debts are almost invariably stated in terms of money.

Not only is money defective as a standard of value; it is also imperfect as a standard of deferred payments. Its imperfections often occasion serious difficulties in the relationship between debtors and creditors. If, for example, a person undertakes to make a payment of \$5,000 at some future time, his obligation remains at that figure no matter what may happen to the purchasing power of money before the payment is made. Some economists, indeed, have suggested that money should be made a more flexible standard of deferred payments: their proposal, if adopted, would obligate debtors to return purchasing power equivalent to that obtained when their debts were contracted; thus the *amount* of money to be repaid would vary.

Money as a Store of Purchasing Power.—When money is used as a medium of exchange, two steps, as we have seen, are involved: a commodity or service is sold for money, and the money is then used to buy other commodities and services. All exchange is basically the “swapping” of goods for goods, for rarely is money desired for its own sake. Because it is possible, nevertheless, to defer the second part of the transaction, that is, to retain the money itself for any desired period of time, money fulfills an additional function by serving as a store of purchasing power.

A farmer may want to exchange his wheat for a tractor. He sells his wheat for money in the autumn, and, because he does not want the tractor until the spring, he retains the money—stores his purchasing power in the form of money—during the winter. Again, most working people receive their wages and salaries in a lump sum weekly or biweekly. They do not immediately spend the money they receive for the goods which they expect to consume until the next payday; but usually they spend a little at a time, retaining temporarily a portion of their purchasing power in the form of money.

In modern times when opportunities for the purchase of stocks and bonds, real estate, and other tangible property and property rights are so widely available, it is not customary to hoard large sums of money to conserve purchasing power. Many kinds of property may be so easily exchanged for money that they closely rival it in serving as stores of purchasing power; some kinds, indeed, are superior to money in this capacity at times when the value or purchasing power of money is expected to fall. On the whole, therefore, the amount of money which the average person keeps on hand or on deposit in a checking account at his bank is but a small proportion of his total wealth. In times of economic crisis, however, an extraordinary demand for hand-to-hand money² usually develops because of the fall in property values and the lack of confidence in the banking system.³

Money as a Guarantor of Solvency.—An additional function of money is found in its service as a guarantor of solvency. A business firm is said to be insolvent if it is unable to meet its obligations when they fall due, no matter how greatly its assets exceed its liabilities. As obligations to pay in the future are almost always stated in terms of money, the holding of a certain portion of the assets in the form of money will prevent the seizure

² The term *hand-to-hand money* is used throughout this text to include all kinds of money in circulation other than bank demand deposits.

³ Some authors list another service of money, namely, its function as a *bearer of options*; and they draw a distinction between this function and the store-of-purchasing-power function. The distinction, in their opinion, is that money is held as a store of purchasing power when a definite purpose for its use in the near or distant future is clearly in mind; while it is a “bearer of options” when the holder is uncertain as to future economic developments, and wants to remain in a position to exercise various “options” or choices as to its use when the situation clarifies itself. Professor Frank D. Graham is outstanding among modern theorists who stress the bearer-of-options function of money. See, for example, his “The Primary Functions of Money and Their Consummation in Monetary Policy,” *Papers and Proceedings of the American Economic Association*, March, 1940, pp. 2-4.

of the firm's property by its creditors. In other words, though a firm may have huge inventories and large aggregates of receivables, its position is precarious if it does not maintain a money reserve sufficiently large to meet its current obligations as they come due.

Individuals, banks, and governments also hold sums of money to guarantee their solvency. Individuals find themselves subject to prosecution in the courts if they do not pay their bills on time. Banks have the obligation to pay their depositors usually at a moment's notice, and they must consequently keep a substantial proportion of their assets in liquid reserves to meet withdrawals. Governments which issue paper money in the form of promises to pay coins of precious metal must keep on hand metallic reserves if they are to fulfill their obligation. Sovereign governments, however, may become insolvent and repudiate their promises without suffering any great hardships; they may, in a word, make their paper money issues irredeemable. Nevertheless, they ordinarily desire to maintain substantial metallic reserves, if not for domestic purposes, at least for the making of international payments.

The Origin and Characteristics of Money

DEVELOPMENT OF MONEY

Nonmetallic Commodities.—A survey of the long history of money clearly shows that mankind has customarily selected the most highly cherished commodities to serve as mediums of exchange and as standards of value. In the early development of money in tropical regions, for example, the articles chosen for monetary purposes were those which could be used for ornamentation, in fishing, and in hunting wild animals. Such articles included beads made of cowrie shells, porcelain, and turquoise, the teeth of sharks and whales, elephant tusks, tiger claws, fishhooks, and flints for arrows. In colder climates, in contrast, articles of clothing, such as skins and furs, were most acceptable and were widely used as money. As the art of domesticating animals progressed, cattle and sheep were commonly selected as standards of value; indeed, the ox remained the standard of value in many early civilizations long after the coining of metals had been introduced. The growth of agriculture led to the adoption as money of such commodities as sugar, corn, wheat, tobacco, tea, and coconuts.

Metallic Money.—In the discovery of the properties of the metals, mankind not only paved the way for millenniums of technological progress, but also made for itself a superior type of monetary medium. Iron, tin, copper, gold, and silver were early put to many uses; but, for monetary purposes, the allotting of a unique position to gold and silver had to wait until they were available in greater abundance; and, temporarily, the base metals held the day. Much of the metallic money of ancient civilizations was in the form of useful implements, such as knives, hoes, axes, pots, vases, bars, wire,

and fishhooks, and these were commonly fashioned from iron, copper, and bronze. As the use of the metals progressed, however, the units became less and less useful for any but monetary purposes—the knife money lost its blade, the fishhooks were bereft of their hooks and were fashioned as bars, and the pots became disks. Money often became merely representative of something which had formerly been of practical everyday use.

Gold, it is believed, was the first metal discovered by man, and from the beginning it was greatly prized for ornamentation; but supplies of the metal were long insufficient to make possible its wide employment as money. The history of silver also runs far back into antiquity. It was certainly known to the Egyptians as early as the beginning of the third millennium B.C., and it was also known at about the same time in China, although it was not used for monetary purposes in those early epochs. In Egypt, silver was long regarded as more valuable than gold; but by the year 1000 B.C. silver had fallen greatly in value because of the large supplies brought by the Phoenicians from the Spanish mines. The first known coins, those of Lydia in Asia Minor, believed to have been struck about the year 700 B.C., were composed of both gold and silver, or electrum, consisting of approximately three parts of gold and one part of silver. The two metals were found in that combination in the natural state. The Greeks preferred silver for larger transactions, while retaining copper for small sums, and they were generously supplied with silver from their Laurium mines. Silver coins were first officially struck by Rome in the year 268 B.C., but the supply of the metal was inadequate until later in the century when Rome, by defeating the Carthaginians in the Second Punic War, gained possession of the Spanish mines. During this period, gold was a rarity in Rome, but toward the close of the century, it began to appear in increasing amounts, and the first gold coins were officially struck in the year 206 B.C. While silver remained predominant in Rome to the end of the Republic, it was supplanted in prestige by gold under the Empire (31 B.C.—476 A.D.).

Following the collapse of Rome, gold virtually disappeared from Western Europe, although the tradition of gold money was maintained in the East by the Byzantine Empire. In the West, during the period generally called the Dark Ages, commerce was practically at a standstill, and the use of money as a medium of exchange was negligible. Silver through these centuries performed such monetary services as were necessary. The rise of cities, such as Venice, Genoa, Florence, and Pisa, in the twelfth and thirteenth centuries, and the growth of commercial intercourse between them and with other city-states and nations, revived the importance of money as a medium of exchange, and these cities took steps to supply it. Thus "modern" gold coinage is usually dated from the appearance of the gold *florin* issued by the city of Florence in the year 1252.

The discovery of America, followed by the Spanish conquest of Mexico and Peru, and the seizure of the rich silver mines of those regions, brought

about an unprecedented flow of silver into Europe. For more than three centuries, the American mines provided an abundant medium of exchange for the rapidly growing commercial activities of the European nations; thus it is that, for much of the modern era, silver has outranked gold as the pre-eminent monetary metal. Gold unquestionably would have continued to occupy a secondary position as a monetary metal had not the great discoveries of new mines in the nineteenth century completely altered the situation. The influx of gold following the discoveries of 1848 in California, of 1851 in Australia, and of the following decade in New Zealand and British Columbia indicated the possibility that sufficient supplies would be available to meet the world's monetary needs. And the discovery in 1884 of the richest deposits of all, those of South Africa, followed by the Klondike discovery of 1897, made the possibility of adequate supplies of gold become a reality.

Paper Mediums.—According to tradition, paper was invented in China in the year 177 B.C., but it was not generally available in Europe until many centuries later. But issues of "paper" money did not await the invention of paper; that is to say, devices equivalent to modern paper issues were used long before paper was known or commonly employed. Thus in certain localities where furs were used as money, frequently pieces were cut from the skins and circulated as the equivalent of the whole skins. The "core money," which was liberally issued by Greek and Roman governments beginning several centuries before the Christian Era, may be regarded as similar to the paper money of the present day in that the metal content of the coins was worth much less than the value declared by the state. The money was so called because it consisted of base metals covered with a thin veneer of gold or silver. In Athens, thin copper disks, having a face value much greater than the value of the copper they contained, circulated side by side with other copper coins whose face and bullion values were equal. Carthage often substituted base metals when issuing money in the form of small leather sacks in which precious metals were supposed to be wrapped and sealed.

China, as the originator of paper, was a logical user of paper for monetary purposes. Students of money believe that the first issue of true paper money was that turned out during the reign of Hsien-tsung in the beginning of the ninth century A.D. for the ostensible purpose of overcoming the difficulty of carrying about large quantities of iron and copper coins. From that time until about the middle of the seventeenth century, except for brief lapses, large issues of paper money were successively issued both by the Chinese emperors and by the Mongols following the conquest of Genghis Khan. In the earlier part of this period, leather money was issued by various European rulers as a means of meeting their heavy burdens of expenditures.

Bank Money.—Financial instruments in the form of clay tablets, traceable as far back as the Assyria of the ninth century B.C. are a prototype of

modern bank money. The clay tablets were used both as receipts for the deposit of the precious metals with the money-changers or in the temples, and as transfer orders similar to modern checks. In Greece, at least as early as the time of Solon (639?-559 B.C.), the increasing circulation of coins created a pressing need of money-changers to evaluate the many varieties; and it was not long until these early bankers were accepting deposits of precious metals and promising to make repayment on demand. Depositors were able to meet their obligations by ordering the money-changers to transfer deposits to the accounts of their creditors. Rome adopted the Greek system and refined it, and the Roman bankers put into use such facilities as demand and time deposits, drafts, checks, letters of credit, and loan instruments of various kinds.

The modern history of bank money dates from the thirteenth and fourteenth centuries, when various private families of Venice, Florence, and other cities of Italy embarked upon banking careers by accepting deposits repayable on demand or transferable to others on the order of the depositors. In 1587, Venice established a public bank, the Banco di Rialto (later called the Bank of Venice), to perform similar functions. The example of Venice was soon followed elsewhere: the Bank of Amsterdam was established in 1609, the Bank of Hamburg in 1619, the Bank of Stockholm in 1688, the Bank of England in 1694, and the Bank of Vienna in 1703. From the middle of the seventeenth century, the goldsmiths provided banking services in England. All these institutions were creators of bank money in the modern sense. They issued receipts acknowledging the deposit of gold and silver, and such receipts could ordinarily be passed from hand to hand like modern bank notes; and they transferred deposits on their books in accordance with the orders of their depositors, as in the use of modern checks.

DESIRABLE CHARACTERISTICS OF MONEY

A careful analysis of the history of money discloses convincing evidence that monetary mediums best fulfill their functions when they possess certain characteristics which can be clearly distinguished. A prime requisite is that a money instrument be *generally acceptable*. The fact that a specific instrument has been established as the money of a country presupposes its acceptability. Governments do not cast about at random and select a commodity or instrument as money and then attempt to persuade or compel their subjects to accept it; because the commodity or instrument is already generally acceptable, governments recognize its superior merits as money.

A monetary medium should be *portable*. The greater the value which may be concentrated in a small amount of money, the greater is its portability. Portability is therefore closely related to a third desirable quality of money, namely, *sufficiency of supply*. Enough of the monetary material must be available to facilitate innumerable exchanges of goods, but it must not be overabundant. If a money instrument is available in great quantities,

any unit must necessarily be of small value, since value depends not only upon utility but also upon scarcity; and, on the other hand, the lack of sufficient money to carry on customary transactions may seriously hamper commercial and industrial activities.

Durability is also recognized as a desirable characteristic of money. Money should not lose much of its weight or deteriorate in quality in passing from hand to hand, or while being held in anticipation of future spending. Money should be *uniform in quality* so that it is not necessary to grade and test each unit every time it passes in exchange. Because business transactions entail innumerable exchanges both large and small, it is desirable that money should be *divisible* in such manner that the parts will be equal to the whole. It follows logically that it should be possible to recombine the parts without loss of value. A further desirable quality of a good money is that it should be *easily recognizable*. In the absence of this quality, confusion would result, for it would be necessary for the people in the course of each transaction to satisfy themselves that instruments offered in payment consisted of the money material and not of some cheap imitation.

A final and extremely important quality which a good money should possess is *stability of value*. Serious maladjustments between various economic classes result when the purchasing power of money fluctuates within a wide range. In other words, the standard-of-value function is fulfilled poorly by any type of money which lacks stability of value.

Money as Legal Tender

To facilitate commerce and to prevent endless disputes between debtors and creditors, governments select certain types of money in circulation, or perhaps all types, and designate them as legal means of payment. It is said that such money is "legal tender" for the payment of debts. Generally governments have not created mediums of exchange merely to make them legal means of payment; rather, they have selected mediums already widely used and generally accepted and have given them the additional legal-tender quality.

If two persons enter into a contract by which the one is to pay to the other a stipulated sum of money, and the type of money is not designated, any legal tender will satisfy the obligation. A seller, however, may stipulate the kind of money he will take in exchange for his goods, and a buyer cannot force him to close a transaction even by offering legal tender.

The refusal of a creditor to accept legal tender does not usually discharge a debt. The debtor remains obligated to pay. But interest on the obligation ceases when an offer of payment in legal tender has been made, and the creditor cannot recover any costs which may be incurred in attempting to force collection in some other medium. In addition, statutes of limitations

may outlaw the debt after a certain number of years if the creditor persists in rejecting the legal tender.

On occasion, however, governments have been so anxious to promote the free circulation of their irredeemable paper money that they have punished creditors for rejecting it by the cancellation of debts. During the American Revolution, for example, the Continental Congress prevailed upon most of the states to adopt legislation nullifying debts upon the refusal of creditors to accept the continental currency.⁴

In normal times, whether or not a circulating money is legal tender is a matter of little concern; but in times of financial difficulty, the fact that a money possesses the legal-tender quality may be an important reason why it remains in circulation. Suppose, for example, that a country's gold money and paper money are both legal tender, and that the latter is depreciating because excessive quantities have been issued and redemption in gold has been suspended. People would find it to their advantage to pay their debts with the legal-tender paper money and to hoard or export whatever gold they possessed.

⁴ Davis R. Dewey, *Financial History of the United States* (New York: Longmans, Green & Co., 9th ed., 1924), p. 38.

Chapter 2

DOMESTIC ASPECTS OF THE GOLD STANDARD

Monetary Standards in General

Although the terms *monetary standard* and *standard of value* are so closely related as at times to appear identical, in usage the former is much more comprehensive than the latter. A standard of value is a monetary unit—such as a gold dollar, a paper pound, or a silver yuan—with which economic values are measured, while a monetary standard comprehends an entire monetary system having for its foundation a particular standard of value. A monetary standard includes within its scope not only the designation of a standard of value, but also all other regulations and arrangements of a monetary character, such as provisions for the issue of fractional coins, government paper money, and bank notes, regulations respecting the buying and selling and the importation and exportation of the precious metals, and the facilities by which bank demand deposits are expanded and contracted. A monetary standard, therefore, may be defined as *a monetary system based upon a specific standard of value.*

TYPES OF MONETARY STANDARDS

The principal classes of monetary standards are designated *commodity standards* and *fiat standards*. A commodity standard is a monetary system in which the value or purchasing power of the monetary unit is kept equal to the value of a designated quantity of a particular commodity or of a group of commodities. In recent centuries, commodity standards have almost invariably been established in terms of gold, of silver, or of both gold and silver at the same time. Thus a country whose monetary unit is declared to be a specific quantity of gold and whose monetary institutions follow a certain pattern (to be discussed later) is said to operate upon a gold standard. If gold is coined, and if the coins have a face or monetary value equal to the market value of the metal of which they are composed, the country is said to have a gold-coin standard. If the gold is held in reserve in the form of bars—and, again, if the monetary institutions follow a certain pattern—the country is said to have a gold-bullion standard. Likewise, systems of money which are built upon standards of value expressed in terms of

silver are designated silver standards; and those which have for their foundation gold and silver simultaneously are referred to as bimetallic standards.

A fiat standard may be described in a negative sense as a monetary system in which the value or purchasing power of the monetary unit is not kept equal to the value of a specific quantity of a particular commodity or of a group of commodities. Fiat standards may originate in the deliberate issue of mediums of exchange which have negligible commodity value in themselves, which are not redeemable at a designated ratio in a particular commodity, and which have purchasing power independent of that of any specified commodity; but they are more likely to originate when countries which have previously maintained metallic standards suspend the redemption of outstanding mediums of exchange in the monetary metal and at the same time permit their purchasing power to fall below that of the metal in which they were formerly redeemable. Thus we say that the United States operated upon a fiat standard in the period from 1862 to 1879, because the greenbacks issued during the Civil War were not redeemable in gold nor had they, unit for unit, purchasing power equal to that of gold. Had the purchasing power of the greenbacks been maintained at par with that of gold, however, the system could not reasonably have been labeled a fiat one.

STANDARD MONEY AND CREDIT MONEY

In a modern monetary system, several kinds of money are invariably provided for simultaneously. A country which maintains the gold-coin standard, for example, will have in circulation not only gold coins but also silver coins, token coins composed of base metals, bank notes, perhaps one or more types of government paper money, and bank demand deposits. One kind of money in a system—and perhaps more than one—is known as the *standard money*, and all other types are designated *credit money*. Standard money may be simply defined as *the money of ultimate redemption*. It is the money in which all other kinds of money are directly or indirectly redeemable, but it itself is not redeemable in anything else. In a country which maintains the gold-coin standard, therefore, the gold coins which have commodity value equal to their face value are standard money; in a country which has the gold-bullion standard, the standard money consists of the gold bars held as reserves; and in a country which has a fiat standard, the standard money consists of some type of government paper money, or bank notes, or perhaps both.

The nonstandard types of money, that is, the credit moneys, are so called because, expressly or by implication, they represent promises to pay standard money—they are, so to say, dependent upon the standard money for their foundation. To the extent that the promise to pay is subject to easy fulfillment the credit money will pass as equivalent to the standard money. If, however, some kind of paper money is the standard, the promise to pay as a characteristic of credit money tends to become meaningless.

Both governments and banking institutions issue credit money in modern times, and their issues may be simply classified as follows:

- 1) Government credit money
 - a) Paper promises to pay standard money
 - b) Subsidiary coin
- 2) Bank credit money
 - a) Bank notes
 - b) Bank demand deposits

Government Credit Money.—Many governments limit their issues of credit money to fractional coins which are designed to serve as mediums of exchange in small business transactions. Modern fractional coins are called *subsidiary coins* because they are deliberately given a face value in excess of the market value of the metal which they contain. Subsidiary coins, at least theoretically, are redeemable in the standard money of a country; but their acceptability does not ordinarily depend upon privileges of redemption, for their great convenience insures their continual use at face value if the supply is kept within reasonable limits.

In some instances, governments also issue one or more types of paper credit money which, again, is redeemable, at least theoretically, in the standard money. The United States has been especially fond of its own paper issues, including the greenbacks, the treasury notes of 1890, and the silver certificates. Great Britain issued special treasury notes during the First World War and retained them in circulation until 1928; and Canada, until the establishment of its central bank in 1934, had the so-called dominion notes outstanding for many years.

Bank Credit Money.—In our day, banks rather than governments are the chief suppliers of credit money; and, as a matter of fact, bank credit money in most countries represents almost the total of mediums of exchange in circulation. Thus in countries such as the United States, Canada, and Great Britain, where the use of bank demand deposits has been fully developed, as much as 90 per cent of the volume of monetary transactions, according to estimates, are settled by means of checks drawn against such deposits. Furthermore, most of the hand-to-hand money is supplied by banks—by the federal reserve banks in the United States, by the Bank of Canada, by the Bank of England, by the Bank of France, and by other central banks.

Reclassification of Money.—A final observation with respect to the distinction between standard money and credit money is important: namely, that a type of money may move from one classification to the other according to changing circumstances. Thus our silver dollar containing 371.25 grains of fine silver was a standard coin before the Civil War, but the present silver dollar, containing the same amount of silver, is a type of credit money. Similarly, the greenbacks, as we have indicated, were a standard money from the time of their issue until 1879, but when their redemption



in gold was provided for in that year, they were relegated to the status of credit money, and gold coin once again became the standard money.

When a government suspends the redemption of hand-to-hand money in precious metal, and fails to maintain its parity with the metal, any type of credit money in circulation may automatically become standard money. Bank money may continue to be regarded as credit money if it is redeemable in a paper standard money issued by the national government; or bank notes may become the standard money of the country—as was true of the notes of the Bank of England following the suspension of the British gold standard in September, 1931.

DOMESTIC AND INTERNATIONAL ASPECTS OF MONETARY STANDARDS

Though it would appear that each independent nation should be quite free to decide exactly what type of monetary standard it desires to establish, as a matter of practical fact its decision must be conditioned by a consideration of the types of monetary standards maintained in other countries. The situation which exists when only one nation maintains a particular standard, say the gold-coin standard, must obviously be much different from the situation which obtains when all nations—or at least all the principal powers—maintain that standard. This conclusion follows from the fact that money serves not only as a domestic but also as an international medium of exchange and standard of value.

The use of money as an international medium of exchange and standard of value must necessarily affect the domestic situation, and thus the domestic and international aspects of monetary standards cannot be completely differentiated. Nevertheless, the separate treatment of the domestic and international aspects—though the separation is somewhat artificial—should promote clarity. In general, we want to understand why a country would want to maintain a particular standard if no other country had that standard, and why it would want to maintain it if many other countries had the same standard.

In view of the proposed division of the subject matter, we shall devote the remainder of the present chapter to an examination of the domestic aspects of the three common variants of the gold standard—the gold-coin standard, the gold-bullion standard, and the gold-exchange standard; in Chapter 3, we shall consider the international aspects of the gold standard; and in Chapter 4, we shall turn our attention to the domestic and international aspects of the bimetallic and fiat standards. In Chapter 4, we shall also say a few words about the silver-coin standard.

Advantages of the Domestic Gold Standard

Proponents of the gold standard present an imposing list of arguments to prove that substantial advantages are enjoyed by those nations which

1194
S/17

maintain it. It appears that some of the advantages may be had by the establishment of the gold standard by a single nation, even though the standard does not exist elsewhere; other advantages obviously depend upon the existence of an international fellowship of nations which operate their monetary system upon a gold basis. As a consideration of the international aspects of the gold standard has been deferred to the following chapter, we may, at the moment, devote our attention to the advantages which a single nation may apparently gain even though it acts, as it were, in isolation. These advantages may be enumerated as follows: (1) the confidence of the general public in the monetary system is strengthened; (2) it is possible to avoid extensive monetary control exercised by the government or by the central bank, because the monetary system tends to operate "automatically"; and (3) the price level is more stable than it would be were the monetary system divorced from gold.

CONFIDENCE

The gold standard promotes confidence in the monetary system, it is claimed, because gold, being universally desirable, has value in itself aside from its monetary use. This is not true of irredeemable paper money. If gold should lose its acceptability as money, it could still be used as a store of value or it could be fabricated as jewelry, tableware, and the like; but if irredeemable paper money should lose its monetary character, it would immediately become worthless.

In a gold-standard country, the people are not only confident as to the quality of the gold money itself, but they willingly accept other kinds of money, such as hand-to-hand paper money and bank demand deposits, because these types are redeemable in gold. So long as the promise of redemption is subject to fulfillment, credit money is regarded as the equivalent of the standard gold money. Confidence is further promoted, it is said, because the people realize that the total quantity of all kinds of money which may be circulated is limited in relation to the quantity of gold available for monetary purposes; hence the danger of excessive issues of credit money which would cause it to depreciate is removed or at least reduced.

The more extreme defenders of the gold standard make a further claim with respect to confidence when they argue that only the prospects of future redemption in gold can explain the acceptability of paper money in a period in which its convertibility into gold has been suspended.

AUTOMATIC OPERATION OF THE MONETARY SYSTEM

The superiority of an "automatic" monetary system is proclaimed by those who fear the confusion and disasters which might result from the inept management of the volume of money by governmental authorities or by the officials of central banks. Better, it is said, to let the supply of money expand and contract in relation to the available volume of gold reserves

26.9.2018
13.6.5

than to place an extraordinary power of control in the hands of a few men.

All that is necessary to make an internal monetary system automatic under a gold standard is to set down certain requirements as to gold reserves in the monetary laws and then to observe the "rules of the game" so established. When bank notes and other types of hand-to-hand money are issued, a certain percentage of their face value must be held in the form of gold reserves; commercial banks are required to keep reserves against their demand deposits with the central banks; and the central bank in turn must keep gold reserves in a stipulated proportion to the commercial bank balances. If the gold reserves are increased, whether by new production, importation, or reclamation, more hand-to-hand money may be issued and bank demand deposits expanded; and if the gold reserves are diminished, whether by use in the arts, exportation, or hoarding, the quantity of hand-to-hand money and bank demand deposits must be contracted in obedience to the prescriptions of the laws.

In summary, then, the supply of gold available for monetary purposes determines the quantity of credit money which may be created; and no board or commission need be vested with the extraordinary power of deciding when and to what extent the supply of money should be expanded and contracted.

STABILITY OF THE PRICE LEVEL

Probably the most compelling argument which can be presented in favor of a specific monetary standard, from the domestic as apart from the international point of view, is that it makes possible a reasonable degree of stability in the price level over a long period of time. This conclusion follows from the fact that most of the difficulties in the economic system which arise from monetary causes are directly related to fluctuations in the purchasing power of money. Such fluctuations profoundly disturb the financial position of various industries individually and in relation to one another, as well as the financial position of various economic classes of the people.

The proponents of the gold standard do not argue that that standard has behaved perfectly in providing a stable price level. Index numbers of prices which are calculated to measure changes in the price level clearly show that wide fluctuations have occurred in the United States and in other countries while operating upon the gold standard. The wholesale price index of the United States Bureau of Labor Statistics, for example, indicates that the gold dollar of 23.22 grains of fine gold would buy at wholesale in 1895 more than twice as much as it would buy in 1926; and in 1932, half again as much as it would buy in 1926. Likewise, the index of the Federal Reserve Bank of New York shows a rise in the general price level from 100 in 1913 to 193 in 1920, then a fall to 158 in 1922, followed by a rise to 179 in 1929, and then a fall to 129 in 1933.

The argument in favor of the gold standard, therefore, does not hold

that the behavior of the price level has been entirely satisfactory in those periods when the gold standard was maintained, but rather that a greater stability was provided than would have obtained had some other standard been substituted. The argument is based largely upon the fact that the monetary gold stocks of the world themselves are quite stable, since they have been accumulated over the centuries, and since the production of any one year represents only a minor fraction of the stocks already available for monetary purposes. Even in 1940, a year in which gold production reached the highest volume in history, the total production amounted to less than 5 per cent of the existing monetary stocks. It is argued, therefore, that a price system based upon a relatively stable gold foundation ought to be more stable than one based upon a foundation subject to greater variations.

Further evidence of the relatively greater stability of the price level in a gold-standard country is found in the fact that the price level and gold production tend to vary inversely with each other. As the gold mining industry is one of diminishing returns or increasing costs, a rising price level discourages the expansion of mining activity and may even curtail production from the mines already in operation. Increases in the cost of machinery, in wages, and in other costs of production narrow the profit margin of the mining companies, and they eventually find themselves unable profitably to work the less accessible sections of the mines and to process the more inferior ores. Likewise, a declining price level, which results in a fall in the costs of mining gold, expands profit margins and makes possible the sinking of deeper shafts, the opening of poorer mines, and the processing of inferior ores; in a word, it is likely to be accompanied by an expansion in the output of gold. The relationship between the volume of production and the costs of production is likely at all times to be exceedingly precise, since the selling price of fine gold is known before any mining operations are undertaken. The mining operators know that they have an unlimited market at the price fixed by the government, but if average costs of production (excluding profits) exceed this price, their output must be produced at a net loss. At the present time, for example, any gold mining operator knows that he cannot profitably produce if his average costs of production (excluding profits) exceed \$50 per fine ounce, the price at which the Treasury is willing to buy newly mined gold.

Now a rising price level would indicate that the supply of money is overabundant, and thus the decline in the production of gold would tend to correct the situation by limiting further expansion; and, in a similar way, a declining price level would be indicative of a shortage in the money supply, and the shortage would tend to be corrected by an expansion in gold production which would be promoted by the reduced costs of operation.

The theorists who recognize a relatively high degree of stability in the price level in gold-standard countries admit that instability could result if gold production did not keep pace with the growth of population and the

expansion of business activity. Studies have been made to determine the rate at which gold production should add to the existing stocks so that expanding monetary requirements may be satisfied. Thus Professor Gustav Cassel, in a study of the period 1850-1910, estimated that stability of the price level required an annual rate of gold production for the period at 3 per cent of existing stocks;¹ and Joseph Kitchin, in an attempt to refine Cassel's results, placed the desirable annual rate of increase in the *stock of gold money* at 3.1 per cent for the same period.² These studies go on to show that in periods in which production or additions to stocks of gold money failed to reach the desired percentage, the price level moved downward, and in periods in which the desired percentage was exceeded, the price level mounted.

Disadvantages of the Domestic Gold Standard

The critics of the gold standard hold that the advantages which have been discussed in the preceding paragraphs are likely to be more visionary than real. Their line of reasoning, however, is not devoted exclusively to attacks upon the arguments of the advocates of the gold standard, but, in addition, they usually present proposals for the establishment of other types of monetary standards which, they believe, will provide better monetary facilities than can be had under the gold standard. We shall not at this time examine the arguments in favor of other types of standards—they will be presented in their proper place; it should suffice here merely to analyze the "case against the gold standard." As before, we shall confine our attention to the domestic aspects of the gold standard—in this instance, to the disadvantages which, according to the critics, a country suffers when, acting in isolation, it adopts that standard for internal purposes.

The alleged disadvantages of the domestic gold standard are chiefly the following: (1) the gold standard is a "fair-weather standard," and its suspension in time of economic difficulties leads to panic; (2) the gold standard does not operate "automatically," and if it did, more harm than good would result; and (3) there are no important reasons why the gold standard should be expected to promote stability in the price level of any given country.

"FAIR-WEATHER STANDARD"

The argument that the gold standard is a "fair-weather standard" is offered by its critics in refutation of the claim that it promotes confidence in the minds of the people. A gold standard, say the critics, promotes confidence in the stability of an internal monetary system only in times of "normalcy"—of prosperity, good wages, high profits, and full employment.

¹ Gustav Cassel, *The Theory of Social Economy* (New York: Harcourt, Brace and Company, rev. ed., 1932), pp. 467-478.

² *The International Gold Problem* (London: Oxford University Press, 1931), pp. 65-68.

When an economic crisis develops, the gold standard is immediately threatened. Despite the presence of gold reserves, the "confidence" of the people in the safety of the monetary system suddenly begins to wane. The individual is not so much interested in the fact that the country has sizable gold reserves; he wants to save himself though all else may be lost. If many individuals think in this way—and of course they do—"runs" on the banks develop and great amounts of gold are withdrawn for hoarding. At the very time when the gold standard should strengthen the faith of the people, its suspension takes place in order that the remaining gold reserves may be "protected." Or, at least, there will be rumors of its suspension—rumors not entirely unfounded since they will be based upon past events of a similar character. The suspension or the rumors of suspension will lead to panic, aggravating a situation which, had the fiction of gold redemption not been held out, might have been cleared up with little difficulty. In a word, say the critics, the gold standard engenders confidence only when confidence is not needed; and in times of war and economic crisis, the suspension of the standard is too easily accepted as the "way out."

MANAGEMENT VS. AUTOMATIC OPERATION

The claim that the gold standard permits the internal monetary system to operate "automatically" is, according to its critics, beside the point in view of the fact that monetary systems have been "managed" by governmental authorities or the officials of central banks in all gold-standard countries since the restoration of the standard following the First World War. That the standard did indeed operate more or less automatically before that war is admitted, but so profound have been the changes in monetary organization since then that the prospects of restoring automatic operation, the critics believe, are quite remote. The fact is emphasized that, in the period following the First World War, it was in many instances one of the prime duties of central banks to prevent changes in the size of gold reserves from having their normal automatic effects upon the volume of money in circulation, upon the price level, and upon interest rates. The grave disorders which would have been occasioned by the automatic operation of the gold standard in those countries which had accumulated unprecedented hoards of gold, as well as in those countries which had been virtually bereft of gold holdings, made management of the monetary systems imperative.

The critics of the gold standard hold, moreover, that the restoration of automatic operation of the standard, were it possible, would produce results more harmful than beneficial. According to the "rules of the game," the quantity of hand-to-hand money and bank demand deposits may be expanded if the gold reserves increase in volume; and it must be contracted if the reserves are diminished. But no necessary relationship exists between the need of money and the amount of gold available for monetary purposes.

Changes in the supply of gold depend upon its costs of production, the price paid for it by governments, its use in the arts and in industry, and hoarding. The discovery of new deposits, or the perfecting of improved methods of extracting gold from ores, would increase the quantity of gold available for monetary purposes; but the mere fact that a mine has been discovered or technical processes have been improved does not, in itself, mean that there is an increased need of money in the country. The automatic expansion of the quantity of money under such circumstances might well cause an undesirable rise in prices, perhaps bringing a temporary boom but leading to an inevitable collapse.

As mines are worked to great depths, and as inferior ores are processed, the profitability of gold mine operations is reduced, and a time is reached when unit operating costs exceed the price per unit paid by the government. But it does not seem logical to suppose that because mines are closed, the need of money in a country is any less. Indeed, if the productivity of other industries is increasing, an expanded need of hand-to-hand money and bank demand deposits undoubtedly exists. Should the extension of business activities be impeded because gold production declines? Or if the people of India and of other Oriental countries decide—as they have decided for centuries—to drain off large quantities of gold for hoarding as a store of purchasing power, is it logical for the countries of the West to limit the volume of their mediums of exchange while calmly waiting for the Orient to disgorge its hoards?

In summary, the critics of the gold standard contend that when the standard operates automatically, economic society is subject to fits and starts having nothing to do with its capacity to produce goods, but which result from all the vagaries of gold production, consumption in the arts, and hoarding.

FLUCTUATIONS IN THE PRICE LEVEL

Many critics of the gold standard believe that serious fluctuations in the price level result from the policy of making the value of a country's monetary unit equal to that of a specific quantity of gold. Such a policy, they hold, surrenders the price level to all the forces of blind chance, for variations in the price level may be expected to result from all changes in the supply and demand factors affecting gold—the discovery of new mines and the closing of old ones, developments in mining techniques, changes in wage rates and other costs in the mining industry, variations in the use of gold in the arts, hoarding and dishoarding, and importation and exportation.

While they admit that the total volume of monetary gold is relatively stable, that annual production adds only a small fraction to the existing stocks, and that the output of gold tends to vary inversely with the price level, the critics nevertheless point out that the monetary gold stock of any given country is not necessarily stable. If the monetary gold reserves of the

world were equitably distributed among the various countries, and if the annual output of gold were rationed among them in accordance with the growth of population and the expansion of business activity in each, perhaps a reasonable degree of stability in the price level would result. Actually, however, the gold holdings of the various nations are not so nicely regulated, and maldistribution serves to produce serious disturbances in price levels.

Adoption of the Gold Standard

Suppose that, after weighing the merits of the arguments in favor of and opposed to the gold standard presented in the foregoing pages, and after taking into consideration the purported advantages and disadvantages of the standard in its international aspects (which will be discussed in the following chapter), the statesmen of a particular country decide that the welfare of the country demands the establishment of the gold standard. What procedure do they follow? How is the gold standard officially established and maintained?

The basic technical objective to be achieved in the establishment of the gold standard, as we have already seen, is to make the purchasing power of the country's monetary unit equal to the value of a designated quantity of gold. Every monetary unit when it takes physical form, whether as gold coin, silver coin, paper notes, or credits in bank demand deposit accounts, must be endowed with this equality of value with the designated unit of gold, and, of course, fractional and multiple monetary instruments must have purchasing power in proper proportion to the value of the gold unit. The technical objective as described can be achieved if the monetary laws and regulations satisfy certain "requisites" of the gold standard; hence it devolves upon the statesmen to prepare the legislation and to establish the framework for the fulfillment of the "requisites."

Again, a decision must be made as to the type of gold standard which is to be established, whether it is to be the gold-coin variant, the gold-bullion variant, or the gold-exchange variant. The "requisites" differ somewhat for each type, but the technical objective mentioned above is the same for each.

GOLD-COIN STANDARD

Before the First World War in most countries, and as late as 1933 in the United States, the gold-coin standard was the most popular of the various types of standards having a gold foundation. As a matter of fact, the employment of a gold-coin standard was generally regarded as a mark of monetary maturity; and weak, undeveloped countries looked forward to the time when they would be able to adopt that standard. Now, however, the gold-coin standard no longer exists, and there is little likelihood of its revival in the immediate future. Nevertheless, apart from its historical interest, it is necessary to analyze its features in order better to understand other stand-

ards which have developed out of it, as well as to grasp the nature of the problems of monetary reconstruction which now face the world.

A country is said to have a gold-coin standard when its monetary institutions fulfill the following requisites:

- 1) The monetary unit is declared to be a specific quantity of gold;
- 2) There is free coinage of gold;
- 3) There is a free gold market;
- 4) Gold coin is legal tender for the payment of public and private obligations; and
- 5) All types of credit money are redeemable at par in gold coin.

Monetary Unit in Terms of Gold.—The first requisite of the gold-coin standard is most easily satisfied, although stating the monetary unit in terms of gold is quite meaningless unless the other requisites are fulfilled. All that is required is a simple statement in the legislation of a country that the monetary unit is equivalent to a designated quantity of gold. When the United States still maintained the gold-coin standard before 1933, for example, the law declared the dollar to be equal to 25.8 grains of gold nine-tenths fine (that is, equal to 23.22 grains of fine gold); and before the First World War, when Great Britain operated upon the gold-coin standard, the sovereign was declared to be equivalent to 123.2744 grains of gold eleven-twelfths fine, or 113.0015 grains of fine gold.

Free Coinage of Gold.—By *free coinage* is meant the right of the people to take unlimited quantities of metal to the mint, to have it coined, and to receive the coins in return. Free coinage is listed as a requisite of the gold-coin standard because it insures equality between the face value of the standard coins and the market value of the metal of which they are composed. Should the market value of an ounce of gold rise above the face value of coins containing an ounce of gold, people would melt down coins and sell the gold in the market, and the increased supply in the market would tend to bring down the market value and correct the discrepancy. Likewise, should the market value of an ounce of gold fall below the face value of coins containing that amount, people would be in a position to make a profit by buying gold in the market and taking it to the mint for coining, and their action would cause the inequality of values to be corrected. When the United States was minting gold coins, for example, it was essential that a \$10 gold piece of 232.2 grains of fine gold should have substantially equal value with 232.2 grains of unminted fine gold—although, it is true, a very slight difference in value was tolerable because of the alloy in the coins and the costs of their minting.

At a time when the gold-coin standard was generally in operation, mint policies varied among the governments of the world. Some absorbed all costs of coining, making their coinage not only free but, as we say, *gratuitous*; some charged a fee called *brassage* to cover the costs of coinage; others, like the United States, absorbed the costs of mint operations but charged

for the alloys used in hardening coins; and some in making immediate exchanges of coins for unminted gold levied an interest charge designed to reimburse the mint for the time required to coin the unminted gold. Charges for alloys, for the expenses of mint operations, and for interest did not destroy free coinage, although, as was indicated in the preceding paragraph, they might produce a slight discrepancy between the value of coins and the market value of an equal quantity of unminted metal. To charge fees over and above the costs involved, however, would have destroyed the principle of free coinage, for the profit so earned by the mint—a profit which is designated as *seigniorage*—would have caused a substantial difference in the value of coins and the value of unminted metal of equal quantity. If, for example, a person had brought 232.2 grains of fine gold to an American mint before 1933, and had received in return a coin containing 210 grains, the difference representing seigniorage, the coin could scarcely have been regarded as “ten dollars.”

We may digress for a moment at this point to remark that, although gold is no longer coined, coinage remains an important operation of governments; and some of the terms mentioned in the preceding paragraph are still useful. Governments continue to supply large quantities of subsidiary coins, such as our silver dollars, half dollars, quarter dollars, and smaller units. There is, of course, no free coinage of subsidiary coins; rather, we speak of *limited coinage*, or *coinage on government account*. The government meets all costs of coinage, but because the face value of the coins is much greater than the value of the metal which they contain, it earns a large profit as seigniorage. For example, the half dollar contains 173.61 grains of fine silver. As the government now buys newly mined domestic silver at a price of 90.5 cents per fine ounce (480 grains), it puts only about 32.7 cents' worth of silver in the half dollar. The difference of 17.3 cents, less costs of mint operations and costs of alloy, accrues as seigniorage to the government.

Free Gold Market.—The idea of a free gold market is not entirely distinct from the principle of free coinage. In general, however, the freedom of the gold market means the right of the people to acquire gold in any legitimate manner, whether at home or abroad, and to do as they please with whatever gold they possess. If they want to obtain gold, they may import it, buy it from mining companies or from the mint, or melt down coins; and if they own gold, they may hoard it, sell it to jewelers and other industrial users, export it, or take it to the mint to be coined.

The privileges of the free gold market are designed, like the right of free coinage, to insure the continuous equality between the face value of coins and the market value of the metal of which they are composed. In this regard, the freedom to import and export gold is of special importance, since the free flow of gold across international boundaries makes for a uniformity in its value throughout the world. After allowance has been made

for transportation costs, insurance, and the like, the domestic and foreign value of gold is identical when the free market exists. The establishment of free coinage without a free market would not produce this desired result. Suppose, for example, that our present dollar of 13.714 grains of fine gold were freely coined, but that the federal government should forbid the importation of gold. In that event, the foreign price of gold might rise materially above \$35 per ounce (which is the equivalent of $\$1 = 13.714$ grains) if a shortage in foreign markets developed which could not be supplied out of American reserves; or it might fall materially below \$35 per ounce if it were overabundant abroad and the excessive supply could not be sent to the United States.

Gold Coin as Legal Tender.—The endowment of gold coins with the legal-tender quality is ordinarily of slight importance, since there is little likelihood that governments would refuse them for tax payments or individuals for obligations due them. At the minimum, however, they should be legally recognized as a valid means of meeting obligations since they are designated the standard money of a country—the money of ultimate redemption—upon which all other types of money are dependent. It is conceivable, indeed, that a type of credit money having the legal-tender quality might become more valuable than gold coins of equal denomination lacking that quality—were there, for example, a concerted insistence upon the part of numerous creditors that they be paid only in legal tender.

Redeemability of Credit Money—Gresham's Law.—The requirement that all kinds of credit money be redeemable in gold coin is necessarily included in order that the credit money of various denominations will at all times have value or purchasing power equal to that of gold coins of the same denominations. Easy convertibility of the one kind of money into the other tends to make them equally acceptable. A creditor is not likely to insist that his debtor pay in gold coin if he knows that the paper money which the debtor offers can be exchanged for gold at will. Any discrepancy which might arise between the respective values of gold coin and credit money of the same denominations would bring the monetary system into confusion through the operation of *Gresham's law*, which it is desirable to examine at some length at this time.

The theory of Gresham's law may be stated as follows: If two types of money are in circulation, and if they are declared to be of equal value by the government while they are of different values in the domestic or foreign market, the type overvalued by the government will tend to drive the type undervalued out of circulation.³ The action of Gresham's law, it must be

³ The use of the terms *overvalued* and *undervalued* in this connection is sometimes confusing; but one has only to remember that the type of money overvalued by the government is that which has the less purchasing power in the market. Thus the federal government, during the Civil War, proclaimed in effect that a \$10 greenback was equal in value to a \$10 gold coin, but actually the greenback was overvalued by the government since it had less purchasing power than the gold coin in the market. In other words, when making payment in gold, the people could buy goods at lower prices than when making payment in greenbacks.

emphasized, depends upon a substantial difference in the types of money and not merely upon a difference in incidental characteristics. Thus the recognized fact that money of small denominations tends to remain in circulation while coins and bills of large denominations are likely to be deposited in the banks—this fact does *not* illustrate the operation of Gresham's law; nor is it illustrated by the fact that people hold new, bright subsidiary coins and crisp, clean paper bills and spend abraded coins and soiled bills.

The difference between gold coins and the various kinds of credit money is, of course, a "substantial difference," and thus Gresham's law will operate if either type is overvalued by the government. Should the redeemability of credit money in gold coin be suspended or be made difficult by the establishment of certain obstacles to redemption, the credit money is likely to become less acceptable to the general public. Though the government may continue to declare that gold coin and credit money of the same denominations are of equal value, the people will have a different estimate as to their respective values. Thus the credit money is overvalued by the government, and it tends to drive the gold coin from circulation. The disappearance from circulation of the undervalued money—in this instance, the gold coin—comes about through hoarding and through exportation to foreign countries. Hoarding is likely to progress rapidly if one or more of the credit moneys have been declared legal tender, for the people will use the legal-tender credit money to pay their debts and retain whatever gold comes into their possession. Even in the absence of legal-tender credit money, however, the people will probably anticipate a further depreciation of the credit money, and therefore they will be anxious to spend it and to retain gold coin as a superior store of purchasing power. Exportation of gold coin to foreign countries is likely to take place because it will be acceptable there at full bullion value, while credit money will be acceptable, not at the value placed upon it by the home government, but at a discount. People who have payments to make abroad, therefore, will use gold coin for the purpose and will retain their credit money for use at home.

Another aspect of Gresham's law remains to be mentioned: if any of the undervalued money remains in circulation at home, it will circulate only at a premium. This conclusion follows from the fact that people are not likely to spend the undervalued money at home on the same basis as the overvalued money, if they can get relatively more for the former in foreign countries. Or, looking at the matter from a slightly different point of view, the people, because the gold coin is more acceptable than the credit money, are likely to offer their goods at cheaper prices if payment is offered in gold coin. Despite the declaration of the government as to the equality of values, therefore, the purchasing power of the gold coin becomes greater in the market. Such a situation gives rise to great confusion, because it means that two price levels prevail simultaneously, one in terms of gold

coin, and one in terms of credit money—and perhaps more than two, if the possibilities of redemption vary among the different types of credit money.

GOLD-BULLION STANDARD

Following the First World War, the most popular form of the gold standard in those countries which had adequate reserves was the gold-bullion variant. Thus when Great Britain resumed gold redemption in 1925, it established the bullion standard, as did France in 1928; and the United States, by the adoption of the Gold Reserve Act of 1934, may be said to have established a modified form of this standard.

Features of the Gold-Bullion Standard.—The requisites of the gold-bullion standard differ only slightly from those of the gold-coin standard. The monetary unit is expressed as a specific quantity of gold, and gold bars are made legal tender for the payment of public and private obligations. There is, of course, no free coinage of gold, and whatever gold coins may have been in circulation are melted down and formed into bars.

Substituted for free coinage in a country having the gold-bullion standard is a regulation which provides that the government or the central bank stands ready to buy and sell unlimited quantities of gold at a specific price—the price, of course, being an exact ratio with the declared gold value of the monetary unit. Thus if the monetary unit is declared to be 20 grains of fine gold, the declared price for an ounce of gold (480 grains) would be 24 monetary units. The willingness of the government or the central bank to buy and sell unlimited quantities of gold and the privileges of the free gold market, all of which are retained under a gold-bullion standard, insures an equality between the value of the monetary unit and the domestic and foreign market value of the same quantity of gold. Moreover, the redeemability of credit money is at once provided for, since the government or central bank in selling gold is willing to accept any type of credit money in exchange for it.

Special Advantages of the Gold-Bullion Standard.—The replacement of the gold-coin standard by the gold-bullion standard has been defended on the grounds that the latter, besides gaining all the purported advantages of the former, provides additional advantages in avoiding the costs of coinage and in conserving the available gold for national reserve purposes. It is self-evident that in a gold-bullion-standard country the costs of coining and the abrasion loss on coins in circulation are eliminated. But that is not the end of the matter. The preference for the gold-bullion standard is further based upon the argument that the gold reserves of a country are not likely to be broken up into innumerable small hoards in the possession of individuals, but instead will be kept intact in the possession of the national government or central bank for the common good. Proponents of the bullion standard believe that no useful purpose is served by the circulation of coins and by the hoarding of coins by individuals. They point out that in normal

times the people really prefer to use credit money rather than gold coins; and that, in times of economic crises, when the hoarding of gold coins is likely to progress rapidly, it is better to conserve the gold reserves for the general welfare than to allow them to be drained off in the selfish interest of individuals.

Now the hoarding of gold would be as feasible under a gold-bullion standard as under a gold-coin standard if it were possible for individuals to buy from the government or central bank minute quantities of the metal. For that reason, the monetary regulations adopted in countries having the bullion standard have generally provided for the sale of gold by the central authority only in relatively large quantities. Thus the bar most commonly made available for sale has approximated 400 ounces in weight, which would be worth in the United States at the present time \$14,000. The purpose of a regulation of this kind is to limit the availability of the monetary gold reserves only to those who have a valid need of it in industry and for foreign exchange. Individuals who are unable to amass a sum such as \$14,000 are prevented from hoarding in order to protect themselves at the expense of the general public.⁴

GOLD-EXCHANGE STANDARD

The gold-exchange standard also came into prominence in the period following the First World War, although a few countries had employed it some years prior thereto. There are two types of gold-exchange countries: first, those which maintain virtually no gold reserves at home and which, therefore, depend entirely upon the gold reserves of foreign countries for their standard money; and, second, those which maintain partial gold reserves at home, and which count as additional portions of their reserves their deposits and short-term investments in foreign gold-standard countries. Some authorities prefer to limit the term *gold-exchange standard* to the former type of monetary system; but common usage includes both types, and we shall accept that viewpoint here.

Features of the Gold-Exchange Standard.—The first requisite of the gold-exchange standard is identical with that of the gold-coin and bullion standards, that is, that the monetary unit be expressed as a specific quantity of gold. In place of the free coinage of the gold-coin standard and the unlimited buying and selling of bars by a central authority operating under the bullion standard, the country which maintains a gold-exchange standard provides an unlimited market for gold drafts managed by the government itself or by the central bank. A free gold market is retained, and the people are privileged to import and export gold, to hoard it, to buy it from mining companies, and so on. Provisions for the redeemability of credit money are found in the willingness of the central authority to accept it at par in the sale

⁴ In France, however, groups of individuals adopted the practice of pooling their savings buying bars of gold, and then parceling the gold among themselves.

of the gold drafts, for the gold drafts, in turn, are convertible into gold abroad.

The arrangements for the unlimited purchase and sale of gold drafts are worked out in this way: The government or the central bank, instead of holding full gold reserves at home, maintains deposits with some banking institution in another country which has either a gold-coin or a gold-bullion standard, and it agrees to buy and sell drafts upon that country at a fixed price. If a person wants to obtain gold, he turns domestic money into the home central bank, let us say, and receives a draft upon its deposit in the foreign country. If he wants to sell gold, he is unable to sell it to the central bank at home, but must sell it in the foreign depository country, and the foreign money which he receives in payment he may sell to the home central bank.

When the home central bank sells drafts on its foreign deposits, it adds a charge equal to what the costs would be if it actually had to ship the gold to the depository country. And, on the other hand, when it buys drafts on the depository country, there is deducted an amount equal to the costs which would have to be met if the gold were actually imported. If the premium or discount, respectively, is greater than the costs of shipping, to that extent is the country departing from the fundamental principles of the gold-exchange standard. In practice, such excessive charges may be common. The principles may also be violated in providing that only drafts for relatively large sums will be bought and sold, so that persons of small means may be prevented from obtaining gold exchange.

In theory, if it is to enjoy the alleged advantage of the automatic operation of its monetary system, a country having the gold-exchange standard must look upon its foreign deposits and short-term investments as if they were gold held physically in its own vaults. In other words, the volume of foreign holdings, since it serves in full or in part as the country's gold reserves, must govern the quantity of credit money which may be permitted to circulate at home. Should the country expand its foreign holdings through the purchase of gold drafts, as, for example, from its exporters, the volume of credit money at home could be expanded; but, on the other hand, should its foreign holdings be reduced through the sale of gold drafts, then the situation would call for a contraction of money at home.

"Economies" of the Gold-Exchange Standard.—The question arises as to why a country having bank balances or short-term investments in a foreign gold-standard country would not turn them into gold, import it, and thus maintain reserves at home. The answer is that many countries have found the use of the exchange standard advantageous. Costs incurred in packing, handling, and shipping gold and in providing vaults for it are avoided, and the elimination of gold coins from domestic circulation prevents loss from abrasion. In addition, the foreign deposits and investments have usually

earned interest, and further profit has been realized in the difference between the buying and selling rates on foreign drafts.

Apart from the question of advantage to the exchange-standard countries individually, many statesmen and economists have thought the standard highly desirable from the point of view of international monetary stability. Immediately after the First World War, a widespread belief prevailed that the existing stocks of gold were not adequate to support all the monetary systems of the world. This view appeared to be valid for the reason that central bank and commercial bank liabilities had been swollen enormously by wartime and postwar inflation; and it was patent that existing gold reserves would be insufficient if any substantial part of these liabilities had to be liquidated in gold. The gold-exchange standard, therefore, was held to be particularly advantageous in reducing the demand for gold and in providing an "economy" in its use.

Pyramiding and Depyramiding.—The principal disadvantage of the gold-exchange standard (apart from those disadvantages which are alleged to exist in all gold standards) is that it makes possible, and indeed customary, a dangerous "pyramiding" of the monetary systems of two or more countries upon the foundation of a single gold reserve. The pyramid is, of course, an inverted one, with the gold reserves at the apex, and with the credit moneys of the various countries piled in ever-expanding layers above. Thus the claim that, from the international point of view, gold is "economized" clearly turns out to be a myth. A limited quantity of gold continues to be available to the countries having gold-coin and bullion standards and to the countries having the exchange standard, whether it is concentrated in the former or parceled out among both classes.

Suppose, for example, that Country A operates upon the gold-bullion standard with gold reserves valued at \$5,000,000,000. This gold reserve will "support" a superstructure of bank notes, government paper money, subsidiary coins, and bank demand deposits in Country A, the total volume of which depends upon the provisions of its monetary laws. Now let us assume that Country B maintains the gold-exchange standard and sells goods valued at \$1,000,000,000 in Country A; it leaves the proceeds of its sales on deposit with banks in Country A or invests them in short-term securities. Country A loses none of its gold by exportation, and therefore it has no reason to contract the volume of credit money which it has in circulation. Yet Country B now regards itself as having gold reserves of \$1,000,000,000, and it, too, proceeds to build a superstructure of bank notes, bank demand deposits, and other credit moneys upon this foundation. Actually, then, the two countries fall into the error of believing that \$6,000,000,000 of reserves exist, whereas \$1,000,000,000 of this amount are clearly fictitious.

The evils of pyramiding are realized when the process of "depyramiding" commences. Although Country B is willing normally to depend upon its deposits and short-term investments in Country A for its gold reserves,

it always feels that it has the right to convert them into gold and bring it home. The statesmen of Country B are likely to realize that their position is not entirely a safe one, and they doubtless will keep a close watch upon affairs in Country A in order to be ready to act if conditions there should become troubled. Suppose, then, that Country A runs into an economic crisis. Immediately, Country B can be expected to convert its deposits and investments into gold and to remove the gold to another country or to its own vaults at home. As a result, Country A suddenly finds itself with only \$4,000,000,000 in gold reserves, whereas it had counted all along upon reserves of \$5,000,000,000. If it decides to observe the "rules of the game," it must undertake a drastic contraction in the volume of credit money at home—and that action is likely to have very unpleasant repercussions. Or it may suspend the gold standard and thereby prevent the withdrawal of gold by Country B—but that action, too, is not without serious consequences. It appears, indeed, that there is no agreeable means of meeting the problems which arise when depyramiding gets under way.

Chapter 3

INTERNATIONAL ASPECTS OF THE GOLD STANDARD

The International Role of Gold

The principal significance of gold has been not its use as a basis for the domestic monetary systems of nations but rather its employment as an international standard of value and medium of exchange. Experience seems to demonstrate that a single nation can get along reasonably well, so far as its internal needs are concerned, with a monetary standard which is quite divorced from gold even though most of the other nations maintain gold standards. Thus in recent years many of the major powers have operated with irredeemable paper standards, and the people of those countries have continued to accept the paper money without apparently paying much attention to the fact that it cannot be converted into something, such as gold, which has value apart from its monetary use.

But a country which operates upon an irredeemable paper basis may face severe hardships in trying to maintain commercial relations with other countries. The paper money freely acceptable at home is likely to be looked upon with distrust by foreigners who are asked to export their goods in exchange for it. Hence the country which has a paper or fiat standard loses its direct "link" with the monetary systems of the countries with which it trades.

This fact explains, at least in part, why the governments of the major world powers have so strenuously endeavored to maintain their gold standards despite internal stress; they have recognized that gold is important not only as the foundation of their domestic monetary systems but as the universally accepted means of payment and standard of value. Suspension of the gold standard, therefore, means not only the stopping of redemption at home but the bringing of confusion upon a country's international economic relations.

Before the First World War, the majority of students of monetary problems, as well as legislators and governmental officials, had come to the conclusion that gold provides the best basis for an international standard. Though the gold standard was generally suspended during the war, the

opinion of monetary experts was not changed, and they advised the restoration of the standard by the major countries at the earliest possible moment. The crisis of 1929 and the ensuing depression resulted in a second collapse of the gold standard, but after many years of confusion in the international monetary sphere, no suggestion for a substitute for gold as a means of international payment has gained popular interest or support. It is desirable, therefore, to analyze the purported advantages and disadvantages of the "old" international gold standard to outline its characteristics, and to discover the reasons for its collapse.

ADVANTAGES OF THE INTERNATIONAL GOLD STANDARD

Those countries which participate in supporting an international gold standard gain many advantages—or such is the view of the proponents of the standard. Some of the alleged advantages were discussed in the preceding chapter as being available to a single country which maintains the gold standard, as it were, in isolation; it remains for us to examine those advantages which, it is claimed, accrue when many nations cooperate in establishing their monetary systems upon a uniform gold basis. The advantages supposed to be derived from the international operation of the gold standard may be enumerated as follows: (1) the acceptability of gold as a universal medium of exchange and standard of value; (2) the stability of exchange rates between nations, which makes for certainty in foreign trade and in international capital transactions; and (3) the parity of price levels in all gold-standard countries, which makes possible a large volume of foreign trade to the mutual benefit of all countries concerned.

International Medium of Exchange and Standard of Value.—The most obvious advantage of the international gold standard is found in the unlimited acceptability of gold throughout the world as a medium of exchange and a standard of value. It is a money which transcends national boundary lines, since quantities of gold may be shifted from country to country, becoming at one time, so to speak, pounds; at another, francs; at another, pesos, and at another, dollars. If importers of Country A want to buy goods from exporters of Country B, and if the former do not have a sufficient supply of the latter's money with which to make payment, the deficiency may easily be corrected by the exportation of gold from Country A to Country B. Any country, therefore, has purchasing power available for spending in other countries so long as it possesses a stock of gold which may be exported.

In serving as an international standard of value, gold makes possible the precise comparison of the worth of goods located in different countries. Thus, for example, the relative desirability of buying and selling in dozens of foreign markets can readily be determined.

Stability of Foreign Exchange Rates.—From the international point of view, the pre-eminent advantage of the gold standard lies in the fact that it

makes possible an almost perfect degree of stability in foreign exchange rates. When each country of the world declares its monetary unit to be equal to a specific quantity of fine gold, and when it undertakes to buy and sell unlimited amounts of gold at the established price, the exact worth of its money in terms of another may easily be calculated. Thus the monetary laws of Great Britain, before the suspension of the gold standard there in 1931, declared the pound to be equivalent to 113.0015 grains of fine gold, and the American monetary laws established the dollar as worth 23.22 grains of fine gold. To calculate the ratio between the two monetary units is a simple arithmetical operation—the pound was worth \$4.8665, because it contained 4.8665 times as much gold as the dollar. Allowance, however, had to be made for the expenses of shipping gold between the two countries, and thus the day-to-day rates of exchange might differ by a narrow margin from the parity so calculated. The possible range of fluctuations, nevertheless, was exceedingly small.

When gold parities are thus established and maintained, importers are able to know almost exactly how much in terms of their domestic money specific shipments of goods will cost them, though the value of the goods may be expressed in terms of dollars, pounds, francs, pesos, rupees, or any other monetary unit. Likewise, exporters can estimate with reasonable exactitude the proceeds in domestic money that they will receive in the sale of their goods in foreign markets even when payment is made in a foreign currency. Long-term international investments and other long-term contracts stated in terms of foreign currencies may be negotiated with reasonable safety when exchange rates are fixed according to gold parities. Importers, exporters, investors, bankers, and others are protected because they know that rates may fluctuate only within relatively narrow margins, and that therefore the possibility of loss due to monetary causes is slight.

The far-reaching importance of the gold standard in providing stability of exchange rates can be understood when one reflects upon the difficulties which arise in international commercial relations when stability is absent. Though the volume of transactions in which payment is made immediately or within a very short period of time may not be seriously affected, because wide fluctuations are not expected to occur in the short run, a very serious obstacle is placed in the way of any transaction in which payment is deferred for longer periods. Suppose, for example, that an American firm is negotiating the sale of machinery to a British firm at a time when the exchange rate is four dollars. The American firm would be willing to sell, let us say, at £5,000, for this sum converted at four dollars would give it a profit of, say, \$2,000. Suppose, however, that the British firm is to be allowed a credit period of six months and that at the expiration of that time could the exchange rate has fallen to \$3.50. The payment received at that time could be converted into \$17,500 of American money, and the American firm, instead of realizing a profit of \$2,000, would suffer a loss of \$500. Any

hesitation upon the part of the American firm in negotiating the sale upon the terms outlined, therefore, would be quite understandable.

Parity of Price Levels—Theory of Gold Movements.—The international gold standard, it is further claimed, provides a means by which the price levels of all countries having the standard are brought into parity with one another, with the result that the countries may participate fully in international commercial activities, and none are excluded because of internal discrepancies. The nature of this advantage was touched upon in the preceding chapter in the discussion of the automatic operation of a monetary system when the "rules of the game" of the gold standard are observed. There it was pointed out that, according to those rules, the volume of credit money available in a given country must be expanded and contracted according to changes in the size of the monetary gold reserves. Now it is obvious that when the monetary gold stocks of a nation are affected by the importation or exportation of gold, the gold stocks of other nations are simultaneously affected. Hence the "automatic operation" of the gold standard has its international as well as its domestic implications.

With regard to the parity of price levels, the argument in favor of the gold standard holds that the flow of gold from country to country causes price levels to rise and fall in such manner that they are brought into equilibrium among all the nations which maintain gold standards. In this way, no country can gain permanent advantages over others by means of a low price level, or suffer permanent harm by being excluded from world markets because of a disproportionately high price level. This nice adjustment of the price levels of different countries is explained in terms of the *theory of gold movements* (or the *theory of the price-specie-flow mechanism*, as it is also called) which it is desirable to analyze.

According to the theory of gold movements, a country whose price level is low in comparison with the price levels of other countries will receive a net import of gold which will make possible an expansion of the volume of money in circulation, and that, in turn, will cause its price level to rise; and a country whose price level is disproportionately high will lose gold by exportation, so that it must contract the volume of circulating money with the result that its price level falls. The theory of gold movements, as thus briefly stated, is obviously based upon the assumption that the "rules of the game" of the gold standard are observed in the affected countries.

To illustrate the foregoing proposition, let us assume that a certain country—for simplicity, let us say Utopia—has gained large additions to its gold reserves from the output of its gold mining industry. The expansion in the size of the monetary gold stocks makes possible an increase in the volume of credit money in circulation, and the creation of larger supplies of credit money tends to cause the price level to rise. But the gold stocks of other countries are not immediately affected by gold production in Utopia, so that the volume of their credit money and the height of their price levels

are not altered. As a result, the price level of Utopia is high as compared with the price levels of the countries with which it normally carries on commercial transactions. Must, then, the exporters of Utopia be permanently excluded from their foreign markets because their prices are out of line with those of other countries? Such a sad situation need not be the lot of Utopia if the price-specie-flow mechanism is permitted to operate. The high price level in Utopia does, in the first instance, curtail the purchases of foreigners there, because they are presumably able to obtain goods of the same quality elsewhere at better prices. The volume of payments required of foreigners to Utopian exporters, therefore, declines. At the same time, residents of Utopia realize that they can buy many kinds of goods more cheaply in foreign countries than at home, and in consequence the volume of imports expands. The decline in exports and the increase in imports continues to the point where it is necessary for Utopia to make net payments of gold to foreign countries, and the exportation of gold to settle the net obligations abroad may continue for some time. At all events, the outflow of gold from Utopia tends to correct the disparity of its price level. As gold leaves the country, the volume of money in circulation must be contracted, and the contraction tends to cause the price level to fall.

What is more, the acquisition of gold from Utopia by other countries is likely to speed the restoration of equilibrium of its price level with those abroad. The flow of gold into the other countries expands their monetary reserves and makes possible an expansion in the volume of circulating money, with the result that their price levels tend to rise. Thus the gold flows are likely to dry up when the falling price level of Utopia reaches an equilibrium with the rising price levels of other countries.

DISADVANTAGES OF THE INTERNATIONAL GOLD STANDARD

As it operates internationally, the gold standard, in the opinion of its critics, is subject to two serious disadvantages: (1) the stability of exchange rates is obtained by sacrificing the stability of each country's domestic price level; and (2) the operation of the standard permits economic disorders in one country to have repercussions in all other countries which are linked by the gold mechanism. These purported disadvantages we must proceed to examine.

Exchange Rate Stability and Price Level Instability.—That the gold standard requires the sacrifice of internal price stability in order that exchange rate stability may be gained is claimed by the critics of the standard, because, as they see it, each country must adjust its internal prices to the prices prevailing in other countries if it is to maintain a normal volume of trade. As exchange rates are subject to only very minor fluctuations when they are determined according to gold parities, any "play" in the price relationships existing between two or more nations must be met by direct adjustments of internal price levels. If the price level in one country falls,

and if its exchange rate with a second country is not subject to alteration, then the second country must also reduce its price level if it is to retain its relative competitive position in foreign markets.

The plight of Great Britain in the period from 1925 to 1931 may be cited to show the dangers of inflexibility in exchange rates. Most economists agree that when Great Britain re-established the gold standard in 1925, it fixed the gold value of the pound too high.¹ For example, its exchange rate with the United States, stabilized at approximately \$4.8665, made Great Britain an expensive place for purchases by Americans. In other words, Americans in spending \$4.8665 could obtain more goods at home or in countries other than Britain than they could obtain for a pound in Britain. The result was that the volume of British exports to the United States and to other countries fell off, and British manufacturers, to meet world competition, had to try to cut their costs drastically. The inflexibility of costs coupled with the high external value of the pound brought depression to Britain's principal industries, such as coal, iron, and textiles. Had the exchange rates been allowed to change substantially, the recapture of the British foreign markets would probably have been achieved without grave internal difficulties. Had the rates on London fallen—had they approximated, perhaps \$4.00 or \$4.25 to the pound in terms of the American-British rate—Great Britain could have made her normal sales abroad without the need of cutting costs at home. But the British tenaciously clung to the standard with its stable exchange rates until the pressure of internal and external difficulties brought its suspension in September, 1931.

Unfavorable Effects of Gold Movements.—Aside from the price level adjustments which are made necessary because of the inflexibility of exchange rates under an international gold standard—and which may be the source of serious internal disturbances—all kinds of disorders are transmitted from country to country, in the opinion of the critics of the standard, as a result of the movements of gold. Gold serves, as it were, as a highly efficient conductor through which the economic shocks felt in particular countries are quickly passed on to other countries. No gold-standard country can effectively insulate itself from these shocks.

Gold movements may have for their cause not only disparities in price levels but also disparities in interest rates, unequal investment opportunities in various countries, and particularly differences in the esteem in which various monetary units are held. The rise and fall of "confidence" in specific monetary units are of outstanding importance in promoting pernicious movements of gold. Thus "flights of gold" from a particular country may develop as a result of uncertainty as to the safety of its currency—and the uncertainty, in turn, may have for its origin political agitation, the adoption of new kinds of regulatory legislation, the spread of labor unrest, or any of a

¹ See, for example, T. E. Gregory, *The Gold Standard and Its Future* (New York: E. P. Dutton & Co., 1932), pp. 40-49.

host of other developments. And it is to be emphasized that the "flights of gold" affect not only the country from which the gold is exported—the country in which the disorders occur—but also the countries to which it is sent.

To clarify the foregoing argument, let us suppose that two countries, A and B, operate upon the gold standard and that at a given time there is no justification for gold movements so far as ordinary commercial relations are concerned. But Country A is in a state of political and economic calm, while Country B is threatened with acute civil strife. Because of the disturbed conditions in Country B, those who have property located there, whether they are citizens or foreigners, immediately become anxious to transfer their wealth to the relative security of Country A. Such a transfer of wealth results in a heavy movement of gold from Country B to Country A, and as a result Country A, as it were, is made to suffer for the misdeeds of Country B. If Country A observes the "rules of the game" of the gold standard, it must permit an expansion in the volume of its credit money to take place because of the growth of its gold reserves—but such an expansion would obviously have no bearing upon the need of the people of that country for more mediums of exchange. The expansion would be entirely fortuitous, and it might well result in a rapid rise in the price level which would bring on an unhealthy boom in industrial activity to be followed by a collapse and depression.

REQUISITES OF THE INTERNATIONAL GOLD STANDARD

In the preceding chapter, the conditions necessary for the successful maintenance of the internal gold standard were analyzed; we must now extend our examination to consider the conditions which make possible the successful operation of the standard in the international sphere. The requisites of an international gold standard of the "old" type may be listed as follows: (1) the adoption of some variant of the internal gold standard by many countries, and particularly by the major powers; (2) adequate gold reserves equitably distributed; (3) a reasonable degree of freedom in foreign trade; (4) the avoidance of a heavy burden of international indebtedness; (5) flexibility in the internal economies of the gold-standard countries; and (6) a large measure of political stability in each country.

Adoption of the Gold Standard by Many Countries.—A first requisite of an international gold standard is the adoption of the domestic features of the standard by many countries, and especially by the major powers. The larger the number of countries which link their monetary systems to gold, the more useful is gold as an international standard of value and medium of exchange. Each nation may have full freedom of choice as to the variant of the gold standard it wants to maintain—whether the gold-coin variant, the gold-bullion variant, or the gold-exchange variant. But, obviously, one or more of the major nations—and, desirably, all—must adopt the gold-coin

or gold-bullion variant in order to provide the physical foundation to which may be linked the currencies of those countries which establish the gold-exchange variant.

At the minimum, then, each country which desires to be a member of the gold family must express its monetary unit in terms of gold, it must maintain a free gold market (perhaps for gold drafts rather than for the metal itself), and it must insure the convertibility of its credit money in gold at par. The inclusion of these features in its monetary laws makes it possible for the country to announce that it is "on the gold standard"; but regardless of the number of countries which have such laws, gold as an international money is not likely to be very significant unless the other conditions which we have enumerated prevail. The establishment of the framework of the gold standard by individual countries is, therefore, only a beginning.

Adequate Reserves Equitably Distributed.—A sufficient quantity of gold must be available to supply the monetary needs of all the countries which want to employ the gold standard. The availability of gold, of course, is not determinable at will, since it depends upon the presence of deposits, their accessibility, the methods of production, and other factors, and it is conceivable that current output might not be able at times to keep pace with the expanding needs of monetary systems. Before the First World War and in the early 1920's, statesmen and economists were often pessimistic as to the capacity of the mines to produce enough gold to meet increased monetary requirements; but the tremendously expanded production of gold in the 1930's and 1940's, as well as the actual and prospective devaluation of monetary units, has largely resolved these doubts.

Not only must there be enough gold, but it must be distributed in equitable proportions among the countries of the world. Any nation which suffers an acute shortage of gold can hardly be said to have a gold standard at all, for any sizable outflow necessary for international payments would almost certainly cause it to suspend the standard. Mere temporary shortages, however, need not jeopardize the standard if facilities are available by which a nation which lacks gold may relieve its embarrassment by borrowing from countries which have abundant supplies.

Freedom of Foreign Trade.—International trade must not be subject to extraordinary restraints and obstacles if a world gold standard is to function successfully. Nations which do not produce gold within their borders or within the borders of their colonies must be able to obtain it by selling their goods in the markets of other countries. As a matter of fact, freedom from obstruction is necessary not only to permit a "have-not" nation to obtain gold but to obtain any important raw materials and manufactured goods which it lacks. If barriers to trade are insuperable, such a nation would have to exhaust its gold reserves in paying for imports—imports which ought to be paid for by the sale of its own goods abroad.

Avoidance of a Heavy Burden of International Indebtedness.—The

avoidance of a heavy burden of international indebtedness is also necessary for the successful operation of an international gold standard. When the volume of a country's external debts becomes very large, its exports must be devoted to making payments of interest and principal, and it is thus unable to build up a supply of foreign balances with which to obtain whatever raw materials and manufactured goods it needs. Furthermore, should any event, such as a world depression, cause a material decrease in the value of the country's exports, it might have to exhaust its gold reserves in maintaining its solvency, that is, in meeting the required payments of interest and principal upon its foreign obligations.

Internal Flexibility.—The international gold standard of the "old" type also requires a great deal of flexibility in the internal economies of the countries which are joined by the gold mechanism. Flexibility of prices and of interest rates is of special importance, for changes therein are expected to bring about adjustments in the gold reserves, reducing them in those countries where they are superabundant, and increasing them wherever they are scanty.

Political Stability.—Finally, a large measure of political stability must exist in all the major countries. Internal unrest, civil strife, and the fall of governments all make people fearful of the future, and are responsible for runs on banks, hoarding, the sending of wealth out of the country—causing, in other words, vicious attacks upon the gold reserves.

Summary.—World conditions must be such that every ill wind will not presage the collapse of the gold standard in any country which zealously desires to retain membership in the gold bloc, for a frail and tottering standard is probably productive of more harm than good. Every country should be able to maintain the standard without too great sacrifice, and to the extent that countries are permitted to fall by the wayside the usefulness of gold as international money is reduced.

Breakdown of the International Gold Standard

Whatever may be one's judgment as to the relative weight of the alleged advantages and disadvantages of an international gold standard, the fact remains that the standard failed to function adequately in the period following the First World War. Indeed, some economists hold that it performed with reasonable success before that war only because of a special set of circumstances which are not likely to be restored. In the prewar period, it is said, the international gold standard was really a British or sterling standard, for British bankers financed a great part of the foreign trade of all the nations of the world. A huge volume of payments between non-British countries were made by drafts drawn upon London, so that, in a sense, the British bankers acted as bookkeepers for the world-trade accounts of the various countries. Much merchandise was carried in British ships and pro-

tected by British insurance companies. The British bankers and capitalists, moreover, were willing to lend freely in foreign countries, thereby providing capital to nations poorly developed economically. Britain's policy of free trade made it possible for debtor countries to sell their merchandise in British markets and thus establish balances with which to pay interest and principal on their obligations. All this meant that frequent shipments of gold were unnecessary.

However that may be, conditions and developments in the period between the two world wars were such that the international gold standard could not long resist the pressures exerted upon it. For a time, in the decade of the 1920's, it appeared that gold might be restored to the important role it had played before the First World War, and many countries, in the face of numerous difficulties, valiantly struggled to re-establish the standard. But events soon proved the labor of restoration to be ill spent, for the maintenance of the standard became in many instances an intolerable burden. Country after country suspended the gold standard and inaugurated complex regulations to govern its financial relations with the outside world. The manipulation of exchange rates by "stabilization funds," the rationing of foreign currencies, the blocking of foreigners' accounts, the negotiation of clearing and payment agreements—all these and many other devices of "exchange control" became commonplace.² Throughout the decade of the 1930's, chaos reigned in the international monetary sphere.

CAUSES OF THE BREAKDOWN

Obstructions to Foreign Trade.—The First World War engendered in most countries a strong feeling of nationalism, and the policies adopted by governments came more and more to reflect a selfish point of view rather than the viewpoint of international comity. Great Britain lost her pre-eminent financial position, and self-interest prompted her to forgo her former free-trade policy and to promote intra-empire trade at the expense of non-British countries. Other countries, such as the United States, raised tariff barriers to extraordinary levels; and some established embargoes, granted export subsidies, and entered into barter arrangements for the direct exchange of goods for goods.

All the added obstructions to trade made possible a disparity of price levels in the different countries which gold movements did not correct. A low price level in Great Britain, for example, is of no significance to the people of the United States if our tariffs are placed at such levels that the price of British goods delivered in the United States is at least as high as the price of goods produced here.

Maldistribution of Gold.—The war and postwar adjustments led to a maldistribution of the gold reserves of the world. The Central Powers were largely deprived of their gold holdings; many of the new countries of Cen-

² The devices of exchange control are described in detail in Chapter 32.

tral and Eastern Europe found it extremely difficult to accumulate adequate reserves; and the United States and France had excessive reserves, at least as judged by comparison with their prewar holdings. Governmental authorities and the officials of central banks feared the disorders which would be likely to result from excessive or inadequate reserves and took steps to limit the automatic operation of the gold standard. The "rules of the game" of the gold standard were violated as a matter of course—indeed, one should probably say that they were restated in a form which was wholly foreign to their prewar character. Thus the redistribution of gold, which would have taken place through the normal operations of the price-specie-flow mechanism, was circumvented.

"Stuckiness" of Prices.—The adjustment of price levels in keeping with the size of gold reserves was also prevented internally by the development of great consolidated corporations, holding companies which controlled many subsidiaries, trade associations, and labor unions which resisted reductions in prices and wage rates and which, instead, constantly strove to raise them; and, internationally, by powerful cartels which controlled the distribution and prices of certain commodities in all parts of the world.

Use of the Gold-Exchange Standard.—The establishment of the gold-exchange standard by many countries was also a source of weakness in the international standard, for the reason that gold movements which would ordinarily have occurred were no longer necessary. Payments by Americans to foreigners and by foreigners to Americans, for example, did not disturb the gold reserves of the United States, so long as the foreign countries held bank deposits here which they regarded as part of their *gold* reserves. If an American firm sold goods to an Austrian firm, and the latter made payment by means of a draft drawn upon Austria's bank balance in the United States, the bank would merely charge the account of Austria and credit that of the American firm. Had Austria held its gold reserves at home, the purchase of goods might have caused gold to flow to the United States, and the expansion of our reserves, other things being equal, would probably have led to a higher price level.

International Indebtedness.—German reparations, the war debts owed by the Allies to the United States, and a large volume of international lending all served to prevent the facile operation of the postwar gold standard. The payment of reparations and of installments on the war debts caused movements of gold which had little relation to the direction of trade and to the price levels prevailing from country to country. Such payments generally tended to move gold to the United States where already the reserves were abundant, and to take it from those countries where the reserves were already inadequate. The pernicious results of these operations were for a time retarded by the willingness of capitalists in the United States to make loans to Germany. A delicate balance was established in that the United States made loans to Germany out of which the latter was able

to pay reparations to the Allies, and the Allies in turn were able to make payments upon their war debts to the United States.

Heavy lending in Latin America was also bound to lead to an impasse, since many loans were made for governmental rather than for industrial purposes. The loans were not directly productive of goods which the Latin-American borrowers could sell abroad to obtain the means to pay interest and principal; and in the face of ever-increasing tariff barriers, it was difficult to see how the borrowing nations were to sell a sufficient supply of goods to enable them to obtain their usual imports and to meet their debt obligations.

Political Instability.—Finally, political instability in many of the postwar countries undermined the gold standard. Rumors of war, civil strife, and political agitation threatened the safety of monetary systems, and panic movements of funds from country to country took place. When internal conditions seemed unsound, individuals, banks, and corporations sought to safeguard themselves by selling their assets at home, and by opening deposit accounts with banks in other countries. Were conditions to take an unfavorable turn in a depositary country, the deposits were withdrawn and dispatched to still another country. In the late years of the 1920's and the early 1930's, huge amounts of "hot money" fled from money center to money center as crises occurred; and these "flights of capital" caused gold movements which were quite unrelated to the movement of goods, price levels, and the need of monetary reserves.

The Restoration of the International Gold Standard

Among the numerous plans and programs advanced to prepare the way for the erection of a new world order following the conclusion of the Second World War, those concerned with the establishment of adequate international monetary facilities have commanded much of the attention of statesmen, economists, bankers, and businessmen. On the whole, leaders of the United Nations both in governmental positions and in private business have favored the restoration of an international gold standard—a standard having many points of resemblance to the "old" type of standard, yet one having possibilities of greater flexibility. Although they have realized that the "old" international gold standard functioned poorly at times, they have felt that no suggested substitute for an international gold mechanism could prevent the return of a condition of extreme disorder in the monetary sphere such as characterized the decade of the 1930's. All are agreed, however, that the restoration of gold to an international role offers no easy solution to world financial difficulties—that, indeed, many problems of extreme complexity must be solved if gold is to be restored upon a secure basis and maintained with a minimum of danger.

The full import of the problems which must be solved if a restored

international monetary standard is to function properly, as well as the significance of many features of the specific articles of agreement of the United Nations for the operation of the International Monetary Fund, cannot be adequately expounded without a detailed description of the principles and practices of foreign exchange. For that reason, we shall find it advantageous to defer to Chapter 33 the analysis of such problems and facilities.

Chapter 4

OTHER MONETARY STANDARDS

Bimetallism

The world has had much experience with the bimetallic standard, although no country has operated upon that standard since the beginning of the present century. The monetary laws of the United States were bimetallic until 1873. France adopted the bimetallic standard in 1803 and maintained it until 1874. And so with many other countries. Even before the beginning of the nineteenth century, when most countries were on the silver-coin standard, certain aspects of bimetallism were often present, especially in so far as governments set value ratios between gold and silver.

At the present time, interest in bimetallism is at a low ebb. Outside the United States little thought is given to the possibility of a general restoration of the bimetallic standard; and even here the flurry of interest in bimetallism in 1933 and 1934 (including the grant of authority to the President to re-establish the free coinage of gold and silver at a fixed ratio, the leadership of the American delegation in trying "to do something for silver" at the London Economic Conference, and the adoption of the Silver Purchase Act of 1934¹) may be looked upon as a depression-born phenomenon not likely to be soon repeated.

Regardless of the moribund status of bimetallism, however, a brief study of its features and of the arguments which are presented in favor of and in opposition to it should be rewarding, if for no other reason than that it will give further understanding of the nature of the problems which are faced in the establishment and maintenance of any monetary standard.

REQUISITES OF BIMETALLISM

Countries undertaking to adopt bimetallism might establish coin, bullion, or exchange variants of that standard. Actually, however, only the coin variant has had practical application; and we may thus limit our attention to it. In the establishment of a bimetallic coin standard, a government must declare its monetary unit to be equal to a specific quantity of

¹ See below, p. 81.

gold, and, at the same time, to a specific quantity of silver. This declaration sets up the official *mint ratio* of the value of the two metals. Thus the American Coinage Act of 1792, by making the dollar equal to 24.75 grains of fine gold and to 371.25 grains of fine silver, established a mint ratio of 15 to 1. Officially, therefore, an ounce of gold was regarded as being worth 15 ounces of silver.

Next the government must provide for the free coinage of both gold and silver, and must extend the privileges of the free market to both metals. These provisions, as in the case of the gold standard, are designed to keep the domestic and international market value of the bullion contained in the coins substantially equal to their face value. Both gold and silver coins must be made full legal tender, so that no type of credit money which may have the legal-tender power will become more desirable than the coins. Finally, all kinds of credit money must be redeemable in standard gold or silver coins at the option of the holder. The free interchange of standard gold coins, standard silver coins, and credit money must be assured in order that they may have equal acceptability, which is to say equal purchasing power, in the respective denominations.

ARGUMENTS FAVORING BIMETALLISM

The proponents of the bimetallic standard believe it to be superior to simple gold and silver standards in three principal respects: (1) the monetary reserves of the world are expanded; (2) fluctuations in the general price level are fewer and less drastic, that is, the value of money is more stable; and (3) the stability of exchange rates between the bimetallic nation, on the one hand, and both gold- and silver-standard countries, on the other, is provided.

Expansion of Monetary Reserves.—The first argument in favor of bimetallicism appears to be less convincing now than it was before and immediately after the First World War when, as we have noted, the world's monetary gold stock was thought to be inadequate. But the argument still retains some cogency—assuming, of course, that in the future governments will desire to maintain metallic foundations for their currencies. As monetary reserves increase in size, monetary systems grow in security. Governments have frequently been forced to suspend the metallic redemption of credit money because their reserves of gold were depleted or seriously threatened. If it is desirable, then, to maintain metallic redemption, one would suppose that reserves for this purpose should be as large as possible.² Even though the monetary gold stock of the world is probably well in excess of \$35,000,000,000,³ the total is rather paltry when it is remembered that the

² A recent indorsement of this argument may be found in Paul Einzig, *Monetary Reform in Theory and Practice* (New York: The Macmillan Company, 1937), p. 214.

³ Estimates published in the November, 1944, issue of the *Federal Reserve Bulletin* (pp. 1043-1046) placed the total gold holdings of central banks and governments at the end of September, 1944, at \$35,210,000,000.

total quantity of government and bank credit money in circulation at the present time in the United States alone exceeds \$100,000,000,000. Hence the addition of silver to the monetary reserves to make redemption more certain would seem to be a step in the right direction.

Greater Stability in the Price Level.—The argument that bimetallism promotes stability in the price level may be presented as follows. Fluctuations in the quantity of gold produced, in the quantity hoarded and dis-hoarded, and in the use of gold in the arts all represent changes in the demand for and supply of gold and therefore cause changes in its value. Now similar supply and demand forces affect silver, and its value, too, must be subject to variations resulting from changes in these forces. But to the extent that changes in the supply of and demand for one metal are offset by changes in the supply of and demand for the other, a combined reserve of both metals would be subject to less severe fluctuations than would a reserve of either metal held singly. What is more, any net addition to or subtraction from a combined reserve has a smaller proportionate effect than an equal net addition to or subtraction from a single reserve.

Suppose, for example, that the demand for jewelry in a given period is relatively inelastic, and that popular fancy swings from silver to gold. The use of an increased quantity of gold in the arts in a gold-standard country might have important effects upon the size of its monetary gold reserves; and, similarly, a decline in the artistic use of silver in a silver-standard country might affect its monetary reserves in a significant degree; but in a bimetallic country, the increased use of gold would be offset by the decline in the use of silver, and the aggregate monetary reserves would be less seriously affected. Suppose, again, that Country A, a gold-standard country, has monetary gold reserves of \$4,000,000,000, and that Country B, a bimetallic country, has gold reserves valued at \$4,000,000,000 and silver reserves valued at \$2,000,000,000. Each country, let us say, has its gold reserves increased in a certain year by \$500,000,000. In Country A, this represents a change in reserves amounting to 12.5 per cent, but in Country B, the change amounts to only 8.33 per cent.

As bimetallic reserves are likely to be subject to smaller proportionate fluctuations than either gold or silver reserves held separately, and as the value of money has for one of its important determinants the available quantity of metallic money, the bimetallist concludes that variations in the value of money—originating on the “supply side”—must be fewer and less drastic in a bimetallic country than in countries which employ the gold standard or the silver standard.

Exchange Rate Parities.—Because a bimetallic nation expresses the value of its monetary unit in terms of gold and silver simultaneously, the mathematical relationship between its unit and the gold monetary units of some foreign countries and the silver monetary units of others may easily be determined; and the day-to-day rates of exchange should not vary far from

the mathematical parities so long as the free movement of the precious metals is permitted by the various countries. Between a gold-standard country and a silver-standard country, on the other hand, exchange rates may be subject to wide fluctuations, in accordance with changes in the market value of silver bullion in the gold-standard country.⁴

The foregoing argument in favor of bimetallism was pertinent when many nations maintained the silver standard, for the stability of exchange rates between bimetallic nations and silver nations could be regarded as promoting the expansion of trade. Even today, when the silver standard has been universally repudiated, the bimetallic might well argue that a nation which establishes the bimetallic standard stands to gain a large volume of trade with silver-producing countries in that it provides an unlimited market for silver at an established price.

ARGUMENTS OPPOSING BIMETALLISM

The opponents of bimetallism generally base their case upon its alleged unworkability. They contend (1) that a single country, unless it has unlimited metallic reserves, cannot successfully maintain a bimetallic system, and (2) that the adoption of a bimetallic system on an international scale, with the cooperation of all important nations, is not within the realm of possibility.

Bimetallism and Gresham's Law.—The belief that a single nation cannot succeed in maintaining the bimetallic standard is based upon the principles of Gresham's law. No government, it is contended, is able to select a mint ratio for gold and silver which will continue to equal the ratio between the values of the two metals in foreign markets. Within the bimetallic country, it is true, the market ratio remains identical with the mint ratio, but within foreign nonbimetallic countries, changes in the supply of and demand for the two metals cause the market ratio to depart from the mint ratio fixed in the bimetallic country. Sooner or later, therefore, foreign market developments make the exportation of gold or of silver from the bimetallic country a profitable undertaking; and when the exportation continues for a time, the bimetallic country is likely to find itself with only one metal.

The manner in which the operation of Gresham's law undermines the bimetallic standard may be illustrated. At the present time, the United States Treasury pays \$35 per fine ounce for gold and 90.5 cents per fine ounce for newly mined domestic silver. The ratio between the two prices is roughly 39 to 1. Now let us assume that the government formally establishes a full bimetallic coin standard and makes 39 to 1 the official mint ratio. Suppose, however, that the foreign market ratio of the value of the two metals goes to 40 to 1. As gold would now be undervalued at the mint, Americans would find it profitable to melt their gold coins, export the bullion, and sell it abroad for silver (assuming, of course, the existence of

⁴ See below, p. 513.

free bullion markets in foreign countries). Each gold unit exported could be exchanged for 40 units of silver for importation. Of the silver imported, 39 units could be exchanged for another unit of gold, leaving as profit 1 unit of silver less the expenses of the transaction, such as transportation and insurance. The gold obtained in the United States in exchange for the imported silver could also be exported for additional supplies of silver, and the operation could be continued until the United States might be completely drained of gold.

If the United States were to possess extremely large quantities of gold (as it does), the bimetallic standard might not be endangered, for the outflow of gold would itself tend to correct the condition which gave rise to it. The ratio in the foreign market goes to 40 to 1 because silver becomes relatively more plentiful than gold. Now the outflow of gold from the United States increases the supply of gold available in the foreign market, and the exportation of silver from the foreign market to the United States reduces the supply of silver; so that, as the operation continues, the supplies adjust themselves to restore the former relationship, and the foreign market ratio tends to return to 39 to 1.

At a time when bimetallic standards were employed, this *compensatory principle*, as it is called, was a force actually at work; but normally monetary reserves were not large enough to stand a steady drain, and as a result bimetallic countries usually found themselves upon a single metallic standard, whether gold or silver, depending upon which metal happened to be overvalued at the mint. Even though countries, in many cases, did not lose their entire reserves of the undervalued metal, the constant inflow and outflow of metals as mint and market ratios varied caused a great amount of disturbance and confusion.

Improbability of International Cooperation.—The exportation of one metal or the other from a bimetallic country is profitable, because its foreign-market value exceeds its domestic value; but if there exists no foreign market in which the ratio differs from the domestic mint ratio, the prospects of profit are obviously eliminated. Thus it is generally believed that a system of international bimetallism, established through the cooperation of all nations (or, at least, all the major powers), would avoid the disturbances occasioned by the operation of Gresham's law. Were the nations to agree upon a uniform mint ratio, the market ratio throughout the world would also be uniform, and there would be no incentive to import and export the precious metals merely to take advantage of slight variations in value.

The critics of bimetallism generally recognize the theoretical feasibility of an international bimetallic system, but they argue the improbability of persuading the major nations to cooperate in the establishment of such a system. Outside the silver-producing nations, they point out, interest in the "silver question" is very slight; and even in the silver-producing nations, the

proposal to restore silver to a partnership with gold as a standard metal has but few advocates. The neglect of the "silver question" in the discussion of programs for monetary reconstruction following the Second World War may be cited as indicative of the virtual impossibility of arousing interest in our times in international bimetallism.

The Fiat Standard

NATURE OF FIAT MONEY

Standard fiat money is easily recognized. It has three distinguishing characteristics: (1) it has little or no value within itself as a commodity; (2) it is not redeemable in any commodity whose value is substantially equal to the stated value of the fiat money; and (3) its purchasing power is not maintained at par with that of any commodity, such as gold, into which it may formerly have been convertible. These characteristics require only a brief examination. First, standard fiat money is usually a paper medium, and the commodity value of government or bank paper money is, of course, infinitesimal; but it may be a metallic medium, although the market value of the metal of which the coins are composed is substantially less than their stated value. Second, fiat money is not redeemable in gold or other commodities; as a matter of fact, the establishment of a fiat standard usually begins with the mere suspension of the gold redemption of credit money already outstanding. Finally, the purchasing power of the standard fiat money is determined independently of the value of gold or of any other particular commodity. A monetary standard can scarcely be described as fiat if the circulating money, though not redeemable in gold, has its purchasing power maintained at a parity with that of a specific unit of gold.

If fiat money is issued directly by the government, other types of money in circulation are ostensibly redeemable in the standard government money; but the right of redemption is of little importance unless, perhaps, the standard fiat money is designated legal tender while the other types in use are not. Sometimes bank notes are made the standard fiat money of a country, and, as such, they are invariably endowed with the legal-tender quality.

Governments are often reluctant to acknowledge that their monetary systems are of the fiat variety, and thus they may continue to express their monetary units in terms of gold even though gold redemption is suspended and the parity of purchasing power between gold and the circulating money is lost. Banks may be required to hold gold reserves, and other legal arrangements usually found in gold-standard countries may be maintained. Despite the presence of certain features of the gold standard, however, the system must be judged on the basis of the *de facto* relationship existing between the circulating money and gold.

CASE FOR THE FIAT STANDARD

In recent years, a growing number of monetary economists have been converted to the belief that the maintenance of the fiat standard should be a matter of permanent governmental policy, rather than a makeshift occasioned by difficulties in keeping metallic standards in operation. The full case for the fiat standard, however, cannot be reviewed at this point, since we would be repeating much that has already been said in the discussion of the metallic standards. As the critics of the metallic standards and the advocates of the fiat standard are very often the same people, the arguments purporting to show the disadvantages of the metallic standards are, at the same time, arguments in favor of fiat money. Thus advocates of the fiat standard are likely to scoff at claims that the promise of redemption of credit money in the precious metals creates confidence in the monetary system; they point to the apparent necessity of suspending metallic standards in times of economic crisis as demonstrating the "fair-weather" character of those standards; they emphasize the instability of the price level which has characterized countries operating upon metallic standards; they question the "automatic operation" of the gold standard, and attempt to prove that a monetary system behaving automatically according to the volume of gold reserves and gold movements would be the source of much that is harmful; and they lay great stress upon the likelihood that economic disorders in one gold-standard country will have unhappy reverberations in other gold-standard countries as the result of such developments as "flights of capital."

The viewpoint of the proponents of the fiat standard may be briefly summarized as follows: The quantity of money required in any country depends upon such factors as the volume of business activity, the organization of industry, the means of transportation and communication, the structure of the banking system, and the development of credit and credit instruments. None of these factors is directly related to the volume of gold reserves; hence a monetary system based upon gold is quite divorced from economic realities. If a larger supply of money is required to bring productive factors into operation, the additional money should be forthcoming whether or not a sufficient quantity of gold is available to "justify" the expansion; and, similarly, if the quantity of money in circulation is excessive, it should be reduced despite the presence of an abundant supply of gold. Members of the fiat-standard school hold that the physical resources and manpower of nations on many occasions have failed of full utilization merely because insufficient gold reserves made impossible the erection of an adequate credit structure.⁵

The advocates of fiat money, therefore, would substitute the deliberate management of the monetary system for the more or less mechanical operation of a metallic standard. They would establish government boards and

⁵ Cf. D. H. Robertson, *Essays in Monetary Theory* (London: P. S. King & Son, Ltd., 1940), p. 51.

commissions, and charge them with the duty of controlling the expansion and contraction of money according to changing business conditions, or perhaps they would delegate this authority to the officials of the central bank. They would thus substitute human control for the "rules of the game" of a metallic system. It should be possible, they hold, to find public servants and bankers possessed of sufficient ability to control the issues of fiat money so that business would be properly served. They believe that human intelligence, which has been able to fashion marvelous inventions and to build an imposing structure of industrial society, should also be keen enough to provide a managed monetary system suitable to the needs of that industrial society. It is, they say, a question of human intelligence versus an "automatic" control represented by the presence or absence of a quantity of metal.

A managed fiat system, it is believed, holds the promise of greatly improved financial facilities—a system which would contribute to economic advancement, instead of producing economic disorders, as has happened so often in the past. The expansion, contraction, and use of money could be planned in such manner as to encourage the full employment of the productive equipment of a nation, and adjustments could be quickly made to meet changing industrial conditions. In a word, money could be endowed with a flexibility quite beyond the reach of a metallic system.

CASE AGAINST THE FIAT STANDARD

A presentation of the full case against the fiat standard would necessarily include all the advantages claimed for metallic standards—advantages which we have already discussed at length. To avoid repetition, therefore, it is desirable to limit our attention to two lines of criticism which are usually emphasized: (1) that the universal adoption of the fiat standard would give rise to much confusion in international commerce; and (2) that there is an ever-present danger that fiat money would be overissued.

Confusion in International Commerce.—Because a fiat monetary system is completely divorced from the precious metals, it can have no direct "link" with the monetary systems of other countries. There is no precise relationship between the value of the domestic monetary unit and the value of foreign units, such as that which obtains when the various monetary units are expressed in terms of gold. It follows, therefore, that exchange rates between nations are free to fluctuate without limit.

- The foregoing proposition does not mean that international trade would vanish in the event of the universal adoption of the fiat standard. The people of one country would presumably still be willing to sell goods in a second country for the latter's currency if they knew that it could be used in turn to buy goods in the second country, or perhaps even in third countries. The volume of transactions calling for immediate cash settlement, therefore, might not be seriously affected. But contracts providing for deferred payment in foreign currencies, the holding of foreign currency

balances, and international capital transfers, would be subject to grave dangers arising from the probability of exchange rate fluctuations over a period of time; and, because of the dangers, the volume of operations of these kinds would likely be greatly reduced. Thus many of the advantages of territorial specialization of production might well be lost.

The capacity of fiat exchange rates to fluctuate within a wide range, moreover, would be likely to lead some governments deliberately to depreciate the external value of their currencies in order to gain advantages in foreign markets. Such action would doubtless invite retaliation, leading to competitive depreciation or "currency wars," or to the adoption of many measures to control imports and exports, including tariffs, embargoes, subsidies, drawbacks, and import and export quotas.

Danger of Overissue.—The critics of fiat money place important emphasis upon the probability of the overissue of money in a fiat country—an overissue which leads to soaring prices and gives rise to all kinds of inequalities and maladjustments in the economic system. Even if complete repudiation of the money does not eventually result, severe disorders and widespread confusion are engendered. Whatever may be said in criticism of the metallic standards, it nevertheless remains true that they place maximum limits upon the creation of hand-to-hand money and bank demand deposits; for if the promise of redemption is to be fulfilled, the volume of credit money cannot be permitted to exceed predetermined multiples of the gold reserves; otherwise, the reserves might be quickly exhausted through demands for redemption. Though the established limits may be modified in time of crisis—though, indeed, the metallic standards may be suspended—any action which violates the customary regulations immediately places the general public on notice of the danger into which the economic system is running, and should promote a careful scrutiny of all further actions of the monetary authorities.

No such safeguards, it is claimed, are present where the fiat standard is in operation. Although the fiat country may plan to manage the issue of money to achieve some comprehensive objective such as the stabilization of the price level, such an objective may be easily submerged because of the immediate fiscal necessities of the national government. When the expenditures of the government exceed its normal revenues, it is much easier—so the argument runs—to print new issues of paper money than to levy new taxes or to increase the rates on old ones. Taxes are always unpopular, and legislators when increasing the tax burden must always be fearful of an unfavorable reaction among their constituents. Borrowing offers no simple solution, since it is merely a means by which the task of meeting the deficits is postponed. The easy way out is, therefore, the way of the printing press, and since only the bankers and a few other classes will be disturbed by continuous increases in the volume of money, it is the way which, sooner or later, will capture the hearts of the legislators. The propensity to turn out

excessive quantities of fiat money, it is claimed, has been amply demonstrated in many countries, as in the issue of the French *assignats* of 1789–1796, the American “continentals” of the Revolutionary period and the greenbacks of the Civil War, and the German paper marks following the First World War.

The Silver-Coin Standard

Theoretically, three types of silver standards similar in form to the variants of the gold standard could be employed—a silver-coin standard, a silver-bullion standard, and a silver-exchange standard. Only the silver-coin standard, however, has been of significance in recent monetary history, and its importance has been slight since the beginning of the nineteenth century.

In terms of decades, of course, silver has played a more important monetary role than has gold since the renaissance of Western civilization, for until the close of the eighteenth century, most of the countries of the world employed silver-coin standards. Gold was in circulation during this period, but its position was generally subordinate to that of silver. But when the decline of silver came, it came swiftly, chiefly in the period of the 1870's—although England had suspended the silver standard a century before, in 1774, when it limited the legal-tender capacity of silver coins. The free coinage of silver was discontinued by the United States in 1873, by Germany in 1871, and by the Latin Monetary Union, including France, Belgium, Italy, and Switzerland, in 1874. The reduction in the monetary demand for silver came at a time when the output of the silver mines was expanding, with the result that the value of silver plunged downward. The downward trend has continued to the present time, although it has been interrupted from time to time on account of heavy demands such as those occurring during war periods.

A few governments, for example China, Persia, and the British crown colony of Hong Kong, maintained the silver-coin standard as late as 1935; but the exportation of much of their silver to the United States, occasioned by our Silver Purchase Act of 1934, caused them to suspend the standard.

Chapter 5

MONETARY STANDARDS IN THE UNITED STATES

Colonial Background

DEARTH OF METALLIC MONEY

If they are to have an adequate metallic money, settlers in a new country must bring the metal with them, mine it in the new country, or exchange their produce for it. The American colonists were for the most part poor, and only insignificant gold and silver deposits were found in the colonies. Even the third course was not a feasible means of providing metallic money, for the colonists, in exporting their products, had the choice of importing in return either metal for monetary purposes, or tools, equipment, and other goods which could not be produced here. As they usually chose to import the latter, a serious shortage of metallic money obtained throughout the colonial period. Such coins as did circulate came chiefly from the West Indies and were mostly of Spanish and Portuguese origin, with Spanish dollars or pieces of eight leading in popularity. These coins were usually made legal tender for the payment of public and private obligations; and various nonmetallic commodities, such as wampum, beaver skins, tobacco, and rice, were also made legal tender from time to time in various colonies.

Only one venture to provide a domestic metallic money was successful, and that was the establishment by Massachusetts in 1652 of a privately operated mint which produced small silver coins known as the "pine-tree shillings." After operating for approximately thirty years, however, the Massachusetts mint was closed by order of the British government.

Accounts were commonly kept in terms of the British system of pounds, shillings, and pence, and the colonial governments attempted to fix by legislation the ratio between the Spanish dollar and the British shilling. Because they did not adopt uniform ratios, however, great confusion in valuation among the colonies resulted.

COLONIAL PAPER ISSUES

Lacking adequate coinage, the colonies experimented with several kinds of paper money. Beginning with Massachusetts in 1690, most of the colonies at one time or another issued "bills of credit" to meet extraordinary expendi-

tures which could not be financed out of current revenues. Such bills circulated from hand to hand in the manner of modern government paper issues. They were supposed to be redeemed in a short period of time, and they were customarily made receivable in the payment of taxes. At other times, some of the colonial governments issued "loan bills" simply for the purpose of providing mediums of exchange. Unlike the bills of credit, the loan bills were not government promises to pay; they represented, instead, the obligation of the people who first borrowed and spent them. People could obtain a supply of the loan bills for use as mediums of exchange by mortgaging their property as security, by promising to collect a portion of the bills periodically and surrender them for cancellation, and by agreeing to pay interest on the amount taken. Similar loan bills were issued by so-called "loan banks"—such issues were "batches of paper money" sponsored by groups of merchants rather than by the colonial governments. The procedure of placing the bills of "loan banks" in circulation and in retiring them was identical with that observed in the management of government issues.¹

These varieties of paper money, in many instances, were issued to great excess, with the result that they tended to depreciate rapidly; the exchange value of many issues fell as low as 10 per cent of their face value. On the other hand, some issues, such as those of the Pennsylvania public "banks" of 1723 and 1739, were wisely managed and were of great benefit in spurring business activity by providing a much-needed medium of exchange. Because of excessive issues, however, the British government in 1751 forbade the creation of legal-tender paper money in New England, and in 1764 extended the prohibition to the other colonies. Nevertheless, a goodly volume of paper money was still outstanding at the outbreak of the Revolution.

CURRENCY OF THE CONTINENTAL CONGRESS

The confused state of the currency in the colonial period was paralleled by the situation in the period of the Revolution. Coins were exceedingly rare, and those in circulation comprised a motley collection of English, Spanish, Portuguese, Dutch, and French issues.

One of the first acts of the Continental Congress was to authorize the printing of a \$2,000,000 batch of paper money. The money was declared to be redeemable in Spanish dollars or the gold or silver equivalent. This redemption promise, though never fulfilled, presaged the adoption of the dollar rather than the pound as the monetary unit of the United States, and government accounts thereafter were kept in terms of dollars. The members of the Continental Congress thought that the states would take care of the redemption of its paper money, and rough attempts were made to apportion the liability to them on the basis of population. The states, however, did not cooperate.

¹ Issues of these types are described at some length in Davis R. Dewey, *Financial History of the United States* (New York: Longmans, Green & Co., 9th ed., 1924), pp. 21-30.

From 1775 to 1779, no less than forty issues, totaling approximately \$242,000,000, were authorized by the Continental Congress; because, however, some of the earlier issues were partially replaced, the entire amount was not outstanding at one time. In addition, some of the states added paper money totaling \$210,000,000, the greater portion coming from Virginia and the Carolinas. Very early in the course of the war, the quantity of paper money in circulation exceeded all reasonable medium-of-exchange requirements, and as a result the money quickly depreciated. By May, 1781, the paper money had ceased to circulate as currency, its depreciation having progressed to the point where a hundred paper dollars were equivalent to one dollar in silver. Later the depreciation became even greater.

Under the Articles of Confederation which went into effect in 1781, the central Congress had few powers with respect to money, and little was done to improve the monetary system until after the new Constitution went into effect in 1789. It may be noted, however, that during the period of the Confederation, several states set up mints and turned out a few coins, and a Mint Ordinance was passed by the Congress in 1786. The Mint Ordinance provided for the dollar unit with decimal fractions and authorized the minting of copper coins.

The Bimetallic Standard, 1792-1862

BIMETALLISM AT 15 TO 1

Coinage Act of 1792.—The Constitution places in the federal government the power to coin money and to regulate its value as well as the value of foreign coins circulating in the United States;² and, at the same time, it forbids the states to coin money and to "emit bills of credit."³ Congress exercised its exclusive powers for the first time in the adoption of the Coinage Act of April 2, 1792. This legislation established a monetary system which largely followed the recommendations of Alexander Hamilton, the first Secretary of the Treasury. Hamilton was convinced of the superiority of a single gold standard, but he felt that, because both gold and silver were scarce in the United States, the exclusive coinage of gold would not provide an adequate medium of exchange.

Hence the law of 1792 established a bimetallic standard. The gold dollar, not to be coined, was given a fine gold weight of 24.75 grains; and the silver dollar, 371.25 grains of fine silver. The ratio was thus 15 to 1. The legislation called for the opening of a mint in Philadelphia, where gold eagles, half eagles, and quarter eagles, worth \$10, \$5, and \$2.50 respectively, and silver dollars, half dollars, quarter dollars, dimes, and half dimes, as well as copper cents and half cents, were to be coined. The free coinage of gold and silver in the denominations mentioned was authorized.

² Art. I, sec. 8, par. 5.

³ Art. I, sec. 10, par. 1.

The coinage of silver began in 1794, and of gold in the following year. Because of the early shortage of domestic coins, Congress provided for the temporary acceptance of certain foreign coins in the payment of import duties and taxes, and, in 1793, they were made legal tender for a three-year period for all purposes at stipulated ratios to the dollar. As the mint was unable to supply an adequate coinage, the designation of foreign coins as legal tender was extended from time to time to 1834.

Difficulties with the Coinage.—When the mint ratio of 15 to 1 was selected in 1792, it was quite close to the market ratio of the value of gold and silver, but toward the close of the century the market value of silver began to fall. This meant that the American mint ratio overvalued silver and undervalued gold, so that it was not profitable to import gold into the United States. France adopted a mint ratio of 15.5 to 1 in 1803, and gold was obviously more valuable there than in the United States. As a matter of fact, very little gold was coined in the United States until the mint ratio was changed in 1834.

Perplexing difficulties also developed with respect to the silver currency, for American traders were able to exchange American silver dollars for Spanish dollars in the West Indies, although the latter were somewhat heavier than the former. It was a profitable operation to export American silver dollars, to exchange them for Spanish dollars, and to import the latter and have them melted down and re coined at the mint. In consequence, domestic silver dollars tended to disappear from circulation, and throughout this period the chief American coin in circulation was the silver half dollar. The situation was so vexatious that President Jefferson in 1806 suspended the coinage of the silver dollar.

In the period from 1792 to 1834, only one batch of government credit money was issued, and this was printed in 1815 to aid in financing the second war with England. It was a small issue of only \$3,393,000, and the notes were not made legal tender, although they were receivable for all payments due the government.

BIMETALLISM AT 16 TO 1

Coinage Acts of 1834 and 1837.—A realization of the inadequacies of the American monetary system led to many proposals, particularly during the 1820's, for its improvement. Suggestions were made that the exportation of domestic coins be prohibited; that a single silver standard be adopted; and that the gold-silver ratio be changed to make it conform more closely with the market ratio. Committees in both the Senate and the House investigated the monetary problem over a period of years and published several interesting reports. Finally, in 1834, a decision was made to retain the bimetallic standard, but to change the ratio. The gold weight of the dollar was reduced from 24.75 grains of fine gold to 23.2 grains; and as the weight of the silver dollar was left at 371.25 grains, this action established a

new ratio of 16.002 to 1. A further slight change was made in 1837 when the fine content of the gold dollar was raised to 23.22 grains, resulting in a ratio of 15.988 to 1. Both of these ratios, usually referred to as 16 to 1, undervalued silver, so that it was now advantageous to export silver and to import gold. As France at this time retained a mint ratio of 15.5 to 1, it offered a convenient market for the disposal of silver.

Because the fractional silver coins had a metallic composition in exact proportion to the silver dollar, it was also profitable to export them. In time, therefore, a grave shortage of fractional coins developed, and for many years no adequate steps were taken to remedy the situation. Some Spanish silver coins were brought into the country and were again commonly used. On the other hand, it was now easy to keep gold coins in circulation. Although the United States continued to have an unfavorable balance of trade, the large investments made here by foreign capitalists caused gold to flow into the country.

Establishment of Subsidiary Coinage.—The discovery of gold in California in 1848 made that metal more plentiful in the United States for monetary purposes, but the increased supplies of gold made its value fall in relation to silver, and resulted in an even greater undervaluation of silver at the mint. As a consequence, silver circulation was practically nonexistent. In 1849, the government for the first time authorized the coinage of a gold dollar, and in 1851, a three-cent piece composed of silver and copper was issued. These actions somewhat relieved the acute shortage of coins of small denominations; but it was not until the adoption of the Coinage Act of 1853 that adequate relief was obtained. This legislation reduced the silver content of the half dollar and all other fractional silver coins; it limited their minting to government account; and it made them legal tender in the payment of debts only to the amount of five dollars. The reduction of the silver content amounted to approximately 6.9 per cent—a reduction barely sufficient to make the face value of the coins greater than the market value of the silver of which they were composed.

The act of 1853 virtually placed the United States on a gold-coin standard. The standard money of circulation was gold. The small coins now represented a subsidiary coinage, and there was no immediate danger that they would be withdrawn because of their commodity value. Nevertheless, because the mint remained open for the coinage of the silver dollar, the United States continued legally upon a bimetallic standard.

The Fiat Standard, 1862-1879

SUSPENSION OF GOLD REDEMPTION

Eight months after the beginning of the Civil War, with the firing on Fort Sumter in April, 1861, the New York banks, followed by banking institutions throughout the country, announced that they could no longer

redeem their notes in gold. Even before this, the Treasury, under authority of legislation passed in July, 1861, had been issuing non-interest-bearing notes which were really a type of paper money. A total of \$50,000,000 was authorized, and the notes were made receivable for all public dues. Although the notes were declared to be redeemable in gold on demand, the Treasury quickly followed the banks in suspending redemption—an action which meant the introduction of an irredeemable paper or fiat standard.

THE GREENBACKS

Issuance of the Greenbacks.—The act of February 25, 1862, authorized the Treasury to issue \$150,000,000 of non-interest-bearing notes (henceforth known as the *greenbacks*) to meet current expenditures. One third of the issue was to be used for the redemption of the demand notes authorized in the preceding year. The new notes were not redeemable in gold but were made legal tender for all private and most public purposes. The notes could be exchanged for 6 per cent gold bonds which were declared to be redeemable in gold in twenty years or callable at any time after five years.

A second issue of \$150,000,000 of greenbacks was authorized in July, 1862; and while the individual notes of the previous issue could not be given denominations of less than five dollars, the second authorization permitted the printing of as much as \$35,000,000 in denominations from one to five dollars. A final batch of \$150,000,000 was authorized in the early months of 1863, and, in this instance, the entire amount might be in denominations of one dollar or more. Moreover, the 1863 legislation did not permit the conversion of the notes into bonds, and it suspended the right of conversion of the previous issues as of July 1, 1863. Thus total issues of \$450,000,000 were in circulation during the war period. In addition, approximately \$163,000,000 of short-term interest-bearing treasury notes were turned out, and, as they were also legal tender, they should be included in the paper money issues of the period.

Depreciation of the Greenbacks.—The mere suspension of gold redemption might not have caused serious difficulties, but that action was aggravated by the manufacture of paper money far beyond the monetary needs of the country. Thus irredeemability coupled with redundancy caused the paper money rapidly to depreciate in relation to gold, that is, as we say, "gold went to a premium." The extent of the depreciation varied from time to time during the war according to the changing fortunes of the armies, the credit position of the Treasury, and the prospects of ultimate redemption. The greatest depreciation was reached in the summer of 1864, when on the average during July and August it stood at 61 per cent; that is to say, \$39 in gold had purchasing power equal to that of \$100 in greenbacks.

The heavy depreciation of paper money also made the fractional silver coins worth much more as bullion than as money, so that they were rapidly withdrawn from circulation. As in the period before 1853, an acute shortage

of small coins ensued. Attempts to remedy the situation were made by the Treasury, by city governments, and by businessmen. The Treasury issued large quantities of legal-tender paper money in fractional denominations and also authorized the use of postage stamps (which were manufactured without glue) as legal tender in small transactions. City governments and business houses, without legal sanction, printed a variety of paper tokens often called "shinplasters."

RESUMPTION OF GOLD REDEMPTION

The Specie Resumption Act of 1875 provided that the greenbacks would be redeemable in gold beginning January 1, 1879, and the Treasury was authorized to set aside a gold reserve to make redemption possible. The latter objective was accomplished during the following years, both by the appropriation of gold already held in the Treasury and by the sale of bonds in exchange for gold. As the date for resumption approached, the premium on gold gradually declined and finally disappeared in December, 1878. When gold was at last available, it is interesting to remark, very few of the greenbacks were presented for redemption; and those notes which did come in were used by the Treasury in meeting its ordinary expenditures, in accordance with the direction of legislation passed in 1878 that notes received were to be "reissued and paid out again and kept in circulation."

"CRIME OF '73"

Other important monetary developments took place during the period in which the United States operated upon a fiat standard. The Coinage Act of February 12, 1873, dropped the silver dollar from the list of coins which the mint might strike. This was by no means a world-shaking event. On account of the undervaluation of silver by the mint ratio of 15.988 to 1, it had been profitable for decades to dispose of silver in foreign markets, and only a negligible number of silver dollars had been coined after 1834. In a short time, however, the silver interests were up in arms regarding the action which had been taken, and they referred to the legislation thereafter as the "Crime of '73."

The change of attitude of the silverites had for its origin an extraordinary fall in the market value of silver; and the fall in value resulted, in turn, from a rapid expansion in the output of silver and a world-wide decline in the monetary demand. Discoveries of rich deposits, such as those of Nevada in the period from 1859 to 1866, opened up important new sources of supply, while many developments abroad pointed toward the rejection of silver as a standard money—developments such as the undermining of the bimetallic system of the Latin Monetary Union through the defeat of France in the Franco-Prussian War, the establishment of the gold standard in the monetary laws of the new German Empire unified by Bismarck, and the decline in the hoarding demand of Oriental peoples.

The average market ratio of silver to gold, which had been 15.57 to 1 in 1870, declined to 16.16 to 1 in 1874, to 16.64 to 1 in 1875, to 17.75 to 1 in 1876, and to 18.05 to 1 in 1880.⁴ Beginning soon after 1873, therefore, owners of silver would have found it highly advantageous to sell it to the mint in the United States, and to obtain and export gold; and had the free coinage of both metals prevailed at that time, the United States would have found itself progressing toward a *de facto* silver standard. The bitterness of the silver interests toward the Coinage Act of 1873 can thus be understood.

The Gold-Coin Standard, 1879-1933

"LIMPING STANDARD"

When the Specie Resumption Act went into effect on January 1, 1879, the United States for the first time was officially on a gold-coin standard; nevertheless, for some years the chief monetary problems of the country involved silver rather than gold.

Bland-Allison Act.—To redress the grievance felt by the inflationist elements of the country on account of the "Crime of '73," Congress in 1878 passed the Bland-Allison Act which ordered the Secretary of the Treasury to buy silver in the market for an indefinite period. Monthly purchases at current market prices were not to exceed \$4,000,000 or to fall below \$2,000,000. The silver was to be coined as dollars of the former weight and fineness, that is, containing 371.25 grains of fine silver; and silver certificates in denominations of ten dollars or more could be issued against silver dollars held in the Treasury. The new silver dollars were made full legal tender, and as nothing was said regarding their redemption in gold, the state of the monetary system was confused. The presence of legal-tender credit money whose redemption in gold was not explicitly assured made possible the description of the monetary system as a "limping standard" in contradistinction to a full-fledged gold-coin standard.

In accordance with the instructions of the Bland-Allison Act, the Treasury purchased in the period from 1878 to 1890, when the act was replaced by a more drastic one, 291,200,000 fine ounces of silver at a total cost of \$308,000,000. Because the market value of silver was less than the monetary value, the silver was sufficient to coin \$378,000,000, yielding the Treasury a seigniorage of \$70,000,000. The continued production of new silver dollars, however, was far beyond the monetary needs of the country, and, aside from that fact, many people disliked to handle the coins because of their bulkiness. In consequence, the silver quickly returned to the Treasury in the payment of taxes and other obligations. As early as 1879, the Secretary of the Treasury reported that of the \$45,000,000 coined up to that time, only \$13,000,000 could be kept in circulation. The situation was improved in 1886 when Congress permitted the issuance of silver certificates of one-

⁴ *Annual Report of the Director of the Mint*, 1941, p. 91.

two-, and five-dollar denominations, for it was much easier to keep the paper money in circulation.

Redemption of Fractional Coins.—The Resumption Act had ordered the Treasury to coin fractional silver denominations to redeem the outstanding fractional paper money issued during the course of the Civil War. But so many of the coins were issued that they frequently passed only at a discount. To correct this situation, legislation passed in 1879 provided that subsidiary coins could be redeemed at the Treasury "for lawful money" if presented in amounts of \$20 or multiples thereof. But "lawful money" included the silver dollars and the silver certificates authorized by the Bland-Allison Act; hence the "limping" character of the monetary standard was accentuated.

Sherman Silver Purchase Act.—When the Bland-Allison Act was repealed in 1890, the country was not given relief from the shower of silver; instead, the Sherman Silver Purchase Act, calling for even heavier purchases, was enacted. The silverites were not satisfied with the Bland-Allison Act because a rising market value of silver resulted in smaller purchases by the Treasury, since purchases were made in terms of dollars. The Sherman Act, accordingly, directed the Treasury to purchase as much as 4,500,000 ounces per month if available in the market, and to pay any price up to the coinage value, that is, one dollar for 371.25 grains. The silver was to be paid for by the issuance of new silver certificates (known as the treasury notes of 1890), and the notes were made redeemable, strangely enough, in either gold or silver at the option of the Secretary of the Treasury. The notes were made legal tender, except where stipulations in contracts called for payment in other types of money. A total of \$155,931,000 of certificates was issued in payment for 168,675,000 fine ounces of silver before the repeal of the Sherman Act in 1893.

Drain of Gold Reserves.—The steady flow of silver certificates into the monetary stream, together with other disturbing occurrences, made it gravely difficult to maintain gold redemption in the decade of the 1890's. Although it was permissible for the Treasury to redeem both the Bland-Allison certificates and the notes of 1890 in silver, gold redemption was freely provided. When, therefore, economic conditions became disturbed and people began to fear for the safety of the monetary system, they exchanged their paper currency whenever possible for gold. Financial difficulties in Europe caused foreign bankers to convert their investments in the United States into gold, and to export it in order to build up their reserves at home. At the same time, the revenues of the federal government were falling off, although concurrently pensions for Civil War veterans were increased. The excessive circulation of money caused interest rates to fall, and this occasioned further exports of gold for investment at higher rates abroad.

These conditions reached their culmination in the panic of 1893, and

during the ensuing depression the demand for gold very nearly caused the United States to suspend gold redemption. Time after time, the gold reserves were drawn down to low levels through the redemption of silver certificates. Although President Cleveland, in the autumn of 1893, was able to persuade Congress to repeal the Sherman Silver Purchase Act, it was necessary for the government in the years 1894 to 1896 to issue \$262,000,000 of bonds for the purpose of obtaining gold to meet redemption demands. The determination of the government to maintain gold redemption, and the improvement of economic conditions generally, finally led to an easing of the gold drain, and the standard seemed safe.

GOLD STANDARD ACT OF 1900

It was generally thought that the defeat of William Jennings Bryan, who campaigned for "free silver" in the presidential elections of 1896 and 1900, would permanently settle the silver issue, but, as we shall see, the end was not yet. Bryan wanted the free and unlimited coinage of silver at the old ratio of 15.988 to 1; since the market ratio in 1896 was 30 to 1, his position was clearly untenable. Had he won either election and had he succeeded in having his platform enacted into law, the United States would have found itself with a silver standard, for it would have been enormously profitable to export gold for sale abroad.

On March 14, 1900, several months before the election of that year, Congress enacted the so-called Gold Standard Act which declared the gold dollar to be the "standard unit of value." The Secretary of the Treasury was directed to keep all other forms of money at par with gold, which meant, presumably, that all types of hand-to-hand money, including the silver certificates, the notes of 1890, and the fractional coins, were to be redeemable in gold. A gold fund of \$150,000,000 was to be maintained for the redemption of the greenbacks and the treasury notes of 1890.

MONETARY DEVELOPMENTS DURING THE FIRST WORLD WAR

Suspension of the Gold Standard.—In September, 1917, a presidential proclamation gave to the Federal Reserve Board the power to regulate the outflow of gold to foreign countries and to require express permission for all exports of gold. Permission to export was granted in a few instances shortly after the proclamation was issued, but thereafter requests were invariably denied. Gold was still available for internal purposes, but industrial users were subject to a quota system, and the use of gold coins as mediums of exchange was strongly discouraged. It is reasonable to say that in this period the gold standard was temporarily in suspension, because all the requisites of the standard were not observed. The limitations were removed in June, 1919.

Pittman Act.—Another important monetary event of the war period was the sale of a large portion of our silver reserves to Great Britain under

the terms of the Pittman Act of April 23, 1918. Britain needed a large quantity of silver for currency redemption in India, and she turned to the United States, which had a large supply ready at hand. The United States agreed to sell the silver at a dollar per ounce, and Congress authorized the calling in of \$350,000,000 of silver certificates. The silver certificates were collected by the federal reserve banks and turned over to the Treasury in exchange for Pittman certificates of indebtedness; and the Treasury then canceled the silver certificates, melted the coins, and shipped the bullion to India. A total of approximately 259,000,000 silver dollars was melted down. In order that there might be no shortage of hand-to-hand money on account of the retirement of the silver certificates, the federal reserve banks were authorized to issue a special type of bank note upon the security of the Pittman certificates of indebtedness.⁵

The price of one dollar per ounce which Great Britain agreed to pay for our silver was better than the prices which had prevailed for decades; for the unprecedented demand for commodities of all kinds occasioned by the war had raised its value to unexpected heights. Thus the market ratio of silver to gold, which was 41.71 to 1 as late as July, 1915, fell to 19.06 to 1 in September, 1918, and to the lowest point in more than three centuries, 11.10 to 1, in February, 1920.

The United States, however, was not to benefit permanently by the disposal of its stock of silver at the high price that Britain was willing to pay. The Pittman Act stipulated that the silver reserves were to be replenished by the purchase of new supplies from domestic producers at a price of not less than one dollar per ounce. The restoration of the Treasury's silver stock was begun in May, 1920. In that year, silver sold as low as 60 $\frac{3}{8}$ cents per ounce in the New York market;⁶ the Treasury, nevertheless, was required to pay \$1.00 per ounce for newly mined domestic silver—an operation which gave a total bonus of approximately \$62,000,000 to the silver producers. By June, 1923, the repurchase of silver was completed, the federal reserve bank notes had been called for retirement, and the silver certificates were returned to circulation.

A Limited Gold-Bullion Standard, 1934—

CRISIS OF 1933¹

Background.—During the decade of the 1920's, no important legislation directly affecting the monetary standard of the United States was adopted; but in that decade began a cumulative chain of events which were to culminate in a greater upheaval in our monetary system than had ever occurred before. The monetary chaos of the early 1930's was world-wide in scope; the United States merely shared in the universal confusion.

⁵ See below, p. 109.

⁶ *Annual Report of the Director of the Mint*, 1941, p. 87.

The unhealthy condition of the American financial structure was demonstrated by the unprecedented number of bank failures which occurred in the 1920's and in the early 1930's. No less than 7,062 banks with total deposits of \$2,461,000,000 were suspended during the decade from 1921 to 1930. An additional 2,293 failed in 1931, and 1,453 in 1932.⁷ In seeking causes of the economic collapse, we must add to the weakness of the banking system such other conditions as the growing numbers of the unemployed, the stock market boom and subsequent crash, the wide use of installment selling, the tendency of savings to outrun investment opportunities, the increased maldistribution of wealth, and the growing rigidity of the price structure.

Turning to the international scene, we find that there were many additional forces at work. Among these was unquestionably the growth of trade barriers between nations in the form of high tariff walls, quotas on imports and exports, and barter arrangements. The economic stability of many countries depended upon their ability continuously to borrow abroad; and the burden of international indebtedness, including the war debts due the United States and German reparation obligations, presented an imposing barrier to economic readjustment. Political instability and fear regarding the future of nations were also important factors leading to international economic collapse. The maintenance in many countries of the gold-exchange standard was an important factor of weakness, for constant uncertainty was felt as to the stability of the countries to which the exchange currencies were linked. Central banks which held a portion of their gold reserves in other countries in the form of deposits and short-term investments thought it necessary to convert these balances into gold whenever they became fearful of future developments. Private holders of wealth preferred in many instances to keep their funds in the form of short-term balances which they could quickly transfer from country to country as cabinets fell, as banks closed, as strikes broke out, and as other disturbing events occurred. As a consequence, there were many "flights of capital" from money market to money market as fear gave way to panic.

Development of the Crisis.—The culmination of the crisis is usually said to have begun with the failure of the Credit Anstalt, the largest banking institution of Austria, in May, 1931. Panic quickly spread to neighboring Germany, where runs upon the banks resulted in their temporary suspension and in the failure of one of the most important, the Danat Bank. That British financiers were heavily involved in Germany was a fact widely known, and the financial crisis there gave rise to extreme fears as to the safety of the British banking institutions. Great Britain's weak financial position was indicated by the scantiness of the gold reserves of the Bank of England, which amounted to only approximately \$650,000,000 at the end of July, 1931, as compared with the gold holdings of the United States at

⁷ See Table 26, p. 304.

the same time of approximately \$4,600,000,000.⁸ In addition, a parliamentary committee—the May Committee—had published a very disquieting report with respect to the state of the British finances.

All these evidences of weakness promoted a flight from the British pound. Because Great Britain has been traditionally the banker of the world, she has customarily held large balances of foreign banking institutions. To meet the withdrawals, she borrowed heavily from the United States and France, but even after she had lost gold and foreign exchange amounting to more than a billion dollars, the panic did not subside. In desperation, Great Britain suspended the gold standard on September 21, 1931, and her move was quickly followed by several other countries, including the Scandinavian nations and India, Colombia, and Bolivia.

Rumors then began to circulate that the United States would be the next country to leave the gold standard, and a flight from the dollar therefore developed. In the six weeks following Britain's suspension of the gold standard, the United States lost over \$725,000,000 of gold in exports to foreign countries and in the "earmarking" of gold for foreign accounts. In view of our large gold reserves, however, the gold losses did not seriously threaten our position; and, after a time, the feeling of panic began to abate. But in May, 1932, a new wave of fear regarding the stability of the American monetary system led to further withdrawals of gold; in that and the following month, an additional \$450,000,000 of gold were exported or earmarked.⁹ Soon, however, this panic also subsided.

The internal financial structure had become so seriously weakened, however, that apparently nothing could save it from final disaster. The wave of bank failures, which reached spectacular proportions in 1931 and 1932, destroyed confidence in the remaining institutions, and people turned to hoarding. Long queues formed before banks—customers sought vainly to turn their deposits into any kind of hand-to-hand money, preferably gold coin. The banks, which had their resources invested in loans and securities, could not quickly obtain all the hand-to-hand money that was required. As the demands for money increased, it became necessary for the state and federal governments to come to the aid of the banks. Thus began the series of "bank holidays" which were established in state after state throughout the country. As early as October, 1932, a holiday of twelve days was proclaimed in Nevada; but beginning with that of Michigan on February 14, most of the general suspensions came in February, 1933, and in the first few days of March. New York, the stronghold of American banking, gave way on March 4, the day of President Roosevelt's first inauguration; and banks almost everywhere were in suspension on that day. The terrific drain to which they had been subjected is indicated by the fact that in the brief

⁸ Both figures in terms of the "old" gold dollar of 23.22 grains of fine gold. *Federal Reserve Bulletin*, October, 1933, pp. 554 and 574.

⁹ Figures in terms of the "old" gold dollar. *Federal Reserve Bulletin*, December, 1931, p. 655, and July, 1932, p. 423.

period from February 15 to March 4, the hand-to-hand money in circulation in the United States increased by \$1,631,000,000, including \$300,000,000 of gold coin and gold certificates.

Fall of the Gold-Coin Standard.—On the morning of March 6, 1933, President Roosevelt proclaimed a nation-wide banking holiday to continue for four days; on March 9, the holiday was indefinitely extended. The proclamation of March 6, which was issued under authority of legislation enacted during the First World War, forbade banking institutions to pay out gold and silver coin and bullion, to export those metals, or to set them aside in their vaults for foreign account. Hence the proclamation was in truth a suspension of the gold-coin standard.

Congress hastily assembled in a special session on March 9 and on that day passed the Emergency Banking Act. This legislation, in the first place, approved the action already taken by the President. In addition, the President was vested with the power to regulate foreign exchange and all transactions in gold and silver coin and bullion; and the Secretary of the Treasury was authorized to require the surrender to him of all gold coin, certificates, and bullion held in the United States, other than for foreign account, and to give in exchange an equivalent amount of other types of money.

Under the authority of the Emergency Banking Act, President Roosevelt took immediate action to "nationalize" all gold owned by the people of the United States—except for limited quantities which industrial users were permitted to retain. By a series of executive orders, he forbade the exportation of gold coin, bullion, and certificates unless permitted by the Treasury, forbade the paying out by banks of gold coin, bullion, and certificates, and required all persons to deliver to the federal reserve banks or to member banks of the Federal Reserve System, on or before May 1, all gold coin, bullion, and certificates in their possession.

"Inflation Amendment" and Abrogation of the Gold Clause.—Next came, in May and June, 1933, two pieces of legislation which showed clearly that the objective of the Roosevelt Administration was not merely to hold the gold-coin standard in abeyance temporarily, but rather to disestablish it completely. The first of these—the so-called "Inflation Amendment" to the Agricultural Adjustment Act of May 12, 1933—was chiefly significant in that it authorized the President to reduce the weight of the gold dollar by as much as 50 per cent, and in that it made all coins and currencies issued "by or under the authority of the United States" legal tender for the payment of all public and private debts. Other provisions of the "Inflation Amendment," while spectacular, turned out to be of no lasting importance: the authority given to the President to re-establish a bimetallic standard, his authority to order the issuance of \$3,000,000,000 of United States notes (greenbacks of the Civil War variety) for the purpose of retiring outstanding federal bonds, and his authority to accept from foreign countries a limited amount of silver in the settlement of war-debt obligations.

The second piece of legislation—the Joint Resolution of June 5, 1933—abrogated the gold clause in public and private contracts by authorizing that all outstanding obligations to pay in gold coin be settled by payment, dollar for dollar, in any legal-tender currency. The gold clause, whereby debtors promised to pay gold dollars of the “weight and fineness” or of the “standard of value” existing at the time of the negotiation of contracts, had come as a matter of routine to be included in almost all long-term contracts, and in many short-term ones as well. Hence the joint resolution relieved debtors of an obligation which had become impossible of fulfillment in view of the “nationalization” of gold.¹⁰ Additionally, the joint resolution forbade the incorporation of the gold clause in new contracts, and it restated more precisely the provision of the “Inflation Amendment” making legal tender all coins and currencies issued “by or under the authority of the United States.”

Gold-buying Experiment.—In the fall of 1933, the Roosevelt Administration undertook an experiment which was designed to force the price level up to the average which had prevailed in 1926. Leaders in the administration thought that a rising price level would stimulate a widespread recovery in business activity, and they hoped to achieve their objective by offering higher and higher prices for newly mined domestic gold and for foreign gold. The experiment was doubtless based upon the monetary theories of the late Professor George F. Warren of Cornell University, who

¹⁰ When the dollar was officially devaluated in January, 1934, the gold weight of the new dollar was fixed at 59.06 + per cent of the former weight. Many creditors who had contracts payable in gold dollars of the old weight felt that they should receive more of the “fifty-nine-cent dollars” than the contracts nominally called for. Law-suits were therefore brought in the federal courts in which plaintiffs asked for payment of exactly or approximately \$1.69+ in legal-tender currency for each dollar in gold which had been promised; four such cases reached the Supreme Court. Two of the cases involved the payment of principal and interest on “gold bonds” issued by railroad companies (*Norman v. Baltimore and Ohio Railroad Co.*, and *United States v. Bankers Trust Company*, 294 U.S. 240); one involved legal-tender gold certificates (*Nortz v. United States*, 294 U.S. 317); and the fourth was concerned with the payment of principal upon the Liberty bonds of the federal government (*Perry v. United States*, 294 U.S. 330).

In its decisions, announced on February 18, 1935, the Court held in the first place that Congress possessed the right to abrogate the gold clause as it existed in private contracts and in the contracts of state and local governments—this in accordance with its right to regulate the value of money. Second, the Court held untenable the claim of the plaintiff who sought to recover from the federal government a sum in legal-tender currency far in excess of the face value of the gold certificates which he had been compelled to surrender. At best, he might have had the right to receive an equal face amount in gold coins, but he would not have been able to export them or to hold them within the country without a license; on the contrary, he would have been obligated to surrender the gold coins to the Treasury at face value for other kinds of money. Finally, the Supreme Court held that Congress did not have the authority to abrogate the gold clause as it applied to the contracts of the federal government itself, as in the Liberty bonds. Nevertheless, the owner of the Liberty bonds upon which suit was brought could not recover, the Court decided, because he had not shown that he had been damaged by the action of Congress. Had the general price level changed in inverse proportion to the devaluation, recovery would presumably have been possible.

To forestall renewed efforts of the government's creditors to recover more than the face value of outstanding treasury bonds and other obligations, Congress, by a joint resolution effective January 1, 1936, closed the Court of Claims to further suits. The federal government as a sovereign power can be sued only by its own consent; in this instance, the consent was permanently withdrawn.

was at that time one of President Roosevelt's closest advisers. In Professor Warren's view, the principal cause of the depression was a severe shortage of gold—gold production, he believed, had not kept pace with the rising demand for the metal, so that the general collapse in prices which characterized the depression was merely a result of the increased value of gold. The remedy was therefore obvious: a restoration of the general level of prices required only an appropriate increase in the price of gold—which is the same thing as a reduction in the gold weight of the dollar. In other words, if the gold in the dollar had too much purchasing power, because the shortage of gold had produced an increase in its value, then the thing to do was to reduce the quantity of gold constituting a dollar. Warren held that any increase in the price of gold should produce an increase of the same proportion in the general level of prices.

Whatever the reasoning, it is possible to say that the gold-buying program did not achieve its objective. Had the theory accounting for the experiment been valid, and had it been applied at a time when gold was in general circulation, the price level should have risen more or less rapidly while the purchases were being made and subsequently. In August, 1933, when for the first time gold could be sold in the United States at a price higher than the old statutory price of \$20.67 per fine ounce, the wholesale price index of the Bureau of Labor Statistics¹¹ stood at 69.5. The ultimate devaluation of 40.94 per cent, other things being equal, should have caused the index to rise to approximately 118 (69.5 divided by 59.06). As a matter of fact, that level was not approached in the spring of 1934 or in the remainder of that and the following year. Even the rise of the wholesale price index from 69.5 in August, 1933, to 80.9 in December, 1935, cannot be attributed to the devaluation of the dollar, since many other forces, including the program of agricultural adjustment and government spending for relief, were at work.

GOLD RESERVE ACT

By the end of January, 1934, President Roosevelt was prepared to stabilize the dollar, that is, to set a specific weight for the "new" gold dollar, and although he already had power to do this under the "Inflation Amendment," he evidently wanted a further explicit authorization from Congress. The President, moreover, wanted the Treasury to take title to all gold coin, bullion, and certificates held by the federal reserve banks, and the seizure required special action on the part of Congress. Accordingly, on January 30, 1934, there was passed the Gold Reserve Act, a piece of legislation which effected a more thoroughgoing transformation of the monetary system of

¹¹ While this index is not a wholly satisfactory measure of the *general* level of prices, it nevertheless indicates approximately the changes taking place in the general level. Moreover, the President's advisers probably had the bureau's wholesale index in mind because they spoke in terms of the 1926 level, and 1926 is the base year for the bureau's index, that is, the year in which the index was "100."

the United States than any previous legislation in the history of the country.

The Gold Reserve Act vested in the United States government the title to all gold coin, bullion, and certificates held by the federal reserve banks, and authorized the Treasury to give the reserve banks credit on its books, dollar for dollar at the old rate, in compensation for the gold taken over. Individual holders of gold and local banking institutions had been required to turn their gold over to the federal reserve banks, and it would have been obviously unjust to permit the latter to gain a profit upon the anticipated devaluation of the dollar. The treasury credits established on behalf of the federal reserve banks were made payable in a new type of gold certificates; and the Federal Reserve Act was amended in numerous places to substitute "gold certificates" for "gold," as in the requirements of a reserve for federal reserve notes.

The "Inflation Amendment," which had given the President the authority to reduce the weight of the gold dollar as much as 50 per cent, was amended by a provision stating "nor shall the weight of the gold dollar be fixed in any event at more than 60 per centum of its present weight." The Gold Reserve Act also provided that any profit to be realized through the devaluation of the dollar was to be turned into the Treasury as a "miscellaneous receipt"; and any loss through subsequent revaluation was also to be absorbed by the Treasury. Of the profit of devaluation, two billion dollars were appropriated to an Exchange Stabilization Fund for the purpose of controlling the value of the dollar in international exchange. The fund was placed under the jurisdiction of the Secretary of the Treasury, subject to the supervision of the President.

The Gold Reserve Act, furthermore, provided that gold should no longer be coined for circulation in the United States, that "no currency of the United States shall be redeemable in gold," except as permitted by the Secretary of the Treasury with the approval of the President, and that existing gold be reduced to bars of a weight and fineness determined by the Secretary. The mints, however, could produce gold coins for foreign governments.

The Secretary of the Treasury was given numerous powers, all subject to the approval of the President. He was authorized to prescribe regulations to govern the use of gold in industry, the professions, and the arts, its acquisition by the federal reserve banks for the settlement of international balances, and its use for other minor purposes. At his discretion, the gold certificates owned by the federal reserve banks could be redeemed in gold when necessary to maintain the "equal purchasing power of every kind of currency of the United States." He was empowered to buy and sell gold at home and abroad in any amounts "at such rates and upon such terms and conditions as he may deem advantageous to the public interest." He also received the authority to deal in gold, foreign exchange, credit instruments, and securities for the account of the Exchange Stabilization Fund.

Finally, the Gold Reserve Act, in awkward phraseology, declared the gold dollar to be the standard unit of value.

Devaluation of the Dollar.—By a proclamation issued on January 31, 1934, President Roosevelt officially reduced the weight of the gold dollar (nine-tenths fine) from 25.8 grains to 15 5/21 grains. This action effected a devaluation of approximately 40.94 per cent, making the new price of gold \$35 per fine ounce.¹² The total gold holdings of the government before the act of devaluation amounted to approximately \$4,043,000,000, and the President's proclamation immediately increased their dollar value to \$6,849,000,000. Two billion dollars of the increment were immediately segregated for the newly created Exchange Stabilization Fund, and the remainder became a part of the general cash balance of the Treasury.

The Treasury announced that it would sell gold at a price of \$35 per fine ounce plus mint charges and a handling charge of one fourth of 1 per cent, and that it would buy at \$35 per fine ounce less mint charges and an equivalent handling charge. Purchases at the new price, of course, would be made only with respect to gold legally held, such as gold imported or newly mined within the country; and sales would be made only for such legitimate purposes as were set forth in the treasury regulations.

Gold Powers of the President.—The devaluation of January 31, 1934, was not necessarily a final action, as the President retained the power to alter the weight of the gold dollar as frequently as he wished, so long as he kept within the limits permitted by the Gold Reserve Act, that is, within 50 to 60 per cent of the pre-1934 weight. This power was granted for a period of two years, and the President was accorded the privilege of extending it for an additional year. As a matter of fact, the President did proclaim an extension of one year, and Congress on three occasions renewed the revaluation power, finally allowing it to expire on June 30, 1943. While the power was in effect, it was often described as an effective bargaining "weapon" in discussions of international monetary problems with foreign statesmen.

Even though the power relating to devaluation was permitted to expire, the President still retains great authority to manipulate the gold value of the dollar. The provision of the Gold Reserve Act which permits the Secretary of the Treasury, with the approval of the President, to buy and sell gold "at such rates and upon such terms and conditions as he may deem advantageous to the public interest" places no limit upon the point to which a *de facto* devaluation could be carried. This provision—which, unlike the specific devaluation power, was not scheduled to expire at a stipulated time—would make possible the purchase of gold at \$50 per ounce, or at \$100, or at \$1,000. And, of course, the offering of any price in excess of \$35 per ounce would be tantamount to a further devaluation of the dollar.

¹² The gold value of the new dollar was equal to 59.0623815 per cent of that of the old dollar; hence an ounce of gold which was formerly worth \$20.67183462 was now worth $\$20.67 \div .5906 =$ or \$35.

GOLD MOVEMENTS

At the end of the year 1934, the monetary gold stock held by the United States Treasury amounted to \$8,238,000,000, and it had grown to approximately \$22,785,000,000 at the time of the attack upon Pearl Harbor (see annual data in Table 1). On the latter date, the United States possessed

TABLE 1
GOLD PRODUCTION, MOVEMENTS, AND RESERVES OF THE
UNITED STATES, 1925-1945*

(In millions of dollars)

Year	Domestic production	Net imports or exports (-)	Earmarked gold, decrease or increase ()	Gold stock at end of year
1925	48.0	-134.4	32.2	4,112
1926	46.3	97.8	-26.3	4,205
1927	43.8	6.1	-160.2	4,092
1928	44.3	-391.9	119.5	3,854
1929	42.5	175.1	-55.4	3,997
1930	43.4	280.1	-2.4	4,306
1931	45.8	145.3	-320.8	4,173
1932	45.9	-446.2	457.5	4,226
1933	47.1	-173.5	-58.0	4,036
1934	92.9	1,133.9	82.6	8,238
1935	110.7	1,739.0	0.2	10,125
1936	131.6	1,116.6	-85.9	11,258
1937	143.9	1,585.5	-200.4	12,760
1938	148.6	1,973.6	-333.5	14,512
1939	161.7	3,574.2	-534.4	17,644
1940	170.2	4,744.5	-644.7	21,995
1941	169.1	982.4	-407.7	22,737
1942	125.4	315.7	-458.4	22,726
1943	48.3	68.9	-803.6	21,938
1944	35.8	-845.4	-459.8	20,619
1945	32.0	-106.3	-356.7	20,065

* Valued at \$20.67 per fine ounce through January, 1934, and at \$35 thereafter.

Source: *Annual Report of the Board of Governors of the Federal Reserve System*, 1937, p. 81, and *Federal Reserve Bulletin*.

probably 65 per cent or more of the total monetary gold reserves of the world—at a time when gold had ceased to be standard money in most countries and when much uncertainty surrounded the question of employing gold in the monetary system of the future. From the beginning of 1935 to the end of 1941, the “favorable” balance of trade of the United States amounted to approximately \$6,200,000,000, and it was largely covered by shipments of gold from foreign countries. As the same period was characterized by economic uncertainty, by political confusion, and by the threat and launching of war, Americans were anxious to be rid of their investments in foreign assets, and foreigners, having greater faith in the stability of the

dollar than in their domestic monetary units, were anxious to convert their possessions into dollar assets. Thus the influx of long- and short-term capital—as the economist terms the sale of foreign securities held by Americans and the purchase of American securities by foreigners—is estimated to have amounted to \$5,230,700,000 from the beginning of 1935 to the end of 1941.¹⁸

In the period of our participation in the Second World War, the long-continued expansion of the monetary gold stock was halted; indeed, a reverse movement got under way in 1942. The gold holdings of the Treasury declined by \$10,300,000 in 1942, by \$788,500,000 in 1943, by \$1,319,000,000 in 1944, and by \$553,900,000 in 1945. These declines occurred in the face of a highly “favorable” balance of trade and a continued influx of long- and short-term capital. The explanation lies in the fact that the exportation of goods worth billions of dollars according to the terms of the lend-lease program did not require payments from abroad, while, at the same time, the purchase of goods from neutral countries by the United States required outward payments. Thus many of the countries of Latin America were able to build up substantial dollar balances in the United States by the sale of merchandise here—dollar balances which they could not, in many instances, spend for our goods, the goods not being available on account of the concentration of our industries upon the production of war materials. Some of the Latin-American nations, therefore, converted their dollar balances into gold for shipment home or for holding under earmark within this country. Additional gold was used by our government in buying supplies in North Africa, Iran, India, and other regions and countries, because it was often found that larger quantities of the currencies of those localities could be obtained for gold than in the mere exchange of dollar credits for the desired currencies.

With the cessation of hostilities, the stage was set for a new influx of gold, and net increases in the gold stock developed in December, 1945, and in the early months of 1946. The suspension of most of our lend-lease activities, the reduced need of our spending abroad, the great demand of foreign countries for our goods for purposes of reconstruction and rehabilitation, and the resumption of full-scale operations in gold mining—all these factors presaged a more or less continuous expansion in our gold holdings; so rapid, indeed, was the growth of our gold stock in the period of eight months to the end of July, 1946—amounting to \$237,000,000—that the quick recovery of most of the gold exported or earmarked during the war appeared to be assured.

¹⁸ *Federal Reserve Bulletin*, August, 1944, p. 826. The total is broken down as follows:

Short-term banking funds	\$3,647,500,000
Brokerage balances	100,900,000
Domestic securities	626,700,000
Foreign securities	855,500,000

RECENT LEGISLATION

Act of June 12, 1945.—Although the act of June 12, 1945, did not change the character of our monetary standard, it deserves to be mentioned because it had the effect of strengthening the position of gold as the foundation of our monetary system. In view of the decline in the monetary gold stock discussed in the preceding section, the legislation, in the first place, reduced to 25 per cent the proportion of gold certificates which the federal reserve banks are required to hold as reserves against their circulating notes and deposit liabilities; at the same time, however, the reserve requirements were restated entirely in terms of gold certificates, whereas previously "lawful money," such as silver certificates and greenbacks, had been legally acceptable as reserves against federal reserve deposit liabilities.

Second, the act of June 12, 1945, revoked the authority of the President and that of the Secretary of the Treasury to issue or to order the issue of greenbacks under the terms of the "Inflation Amendment" of the Agricultural Adjustment Act. This provision was obviously a repudiation of what might be called the "fiat-money spirit" of the "Inflation Amendment."

Finally, so far as gold is concerned, the new legislation revoked the authority of the federal reserve banks to issue *bank notes* (as distinguished from federal reserve *notes*). This provision was important because the bank notes had previously been issued without a gold reserve; hence it eradicated another source of what could turn out to be fiat money.

Bretton Woods Agreements Act.—Also to be classified as important recent legislation is the Bretton Woods Agreements Act which was adopted on July 31, 1945. In relation to our monetary standard and monetary facilities, this enactment was important in two respects. In the first place, it authorized the President to accept membership for the United States in the International Monetary Fund and in the International Bank for Reconstruction and Development, articles of agreement for each of which had been drawn up by the United Nations Monetary and Financial Conference which met at Bretton Woods, New Hampshire, in July, 1944. As the fund has for one of its principal purposes the maintenance of an international financial framework through which the gold standard can function smoothly, the acceptance of membership by the United States was, in effect, a declaration of our intention to encourage the use of gold as an international standard of value and medium of exchange. Thus the gold foundation of the dollar was further strengthened.

In the second place, the Bretton Woods Agreements Act directed the Secretary of the Treasury to use \$1,800,000,000 of the Exchange Stabilization Fund to pay a portion of our subscription to the International Monetary Fund. This action was in keeping with the expected shifting of responsibility for exchange stabilization from strictly national stabilization funds to the new international institution. Nevertheless, the legislation made no provision for the disposal of the remaining assets of the Exchange Stabilization Fund

—\$200,000,000 of the original appropriation of the Gold Reserve Act increased by accumulated earnings; hence the fund continues in existence, though its resources have been so severely reduced.

SILVER POLICIES SINCE 1933

While transforming the gold standard, the Roosevelt Administration did not neglect silver; in fact, its silver policy was almost as comprehensive as its gold policy, although not so far reaching in its consequences. The "Inflation Amendment" authorized the President to revalue the silver dollar, to provide for the unlimited coinage of gold and silver at a fixed ratio, and to accept limited quantities of silver from foreign countries upon war-debt payments. In December, 1933, President Roosevelt issued a proclamation ratifying an agreement which had been prepared at the World Economic Conference in London during the preceding summer—an agreement by which the principal silver-producing and silver-using countries hoped to promote stability in the world silver market. Under the terms of the agreement, the United States accepted responsibility to withhold from foreign markets, during the next four years, a total of 24,421,000 ounces of newly mined domestic silver. In keeping with this commitment, the President's proclamation authorized the Treasury to buy at 64.64 cents per fine ounce all domestic silver produced after the date of the proclamation. The price offered was far in excess of "normal" market prices, and thus included a handsome subsidy to the silver producers. The Gold Reserve Act delegated to the President the power to reduce the weight of the silver dollar to keep it in proportion to the new weight of the gold dollar, and to reduce and fix the weight of subsidiary coins to maintain their "parity" with the silver dollar and with the gold dollar.

The most important silver enactment of the Roosevelt Administration was the Silver Purchase Act of June 19, 1934. This legislation envisaged an increase in the silver monetary stock of the United States until its monetary value—that is, at \$1.29 per fine ounce¹⁴—should be equal to one fourth of the combined gold and silver monetary stocks of the country. The Secretary of the Treasury was directed, at his discretion, to put the purchase policy into effect by buying both at home and abroad, paying not more than \$1.29 per ounce generally, and not more than 50 cents per ounce for silver stocks existing in the United States on May 1, 1934. With the approval of the President, the Secretary was permitted to sell silver if its price in world markets should go to \$1.29, or if the monetary value of our silver stock should exceed 25 per cent of the value of our combined gold and silver stocks. Later the discretion of the Secretary of the Treasury respecting the purchase of newly mined domestic silver was removed; by provisions of

¹⁴ This value, which is really \$1.2929..., harkens back to the Coinage Act of 1792 which, as we have seen, declared the silver dollar to be equivalent to 371.25 grains of fine silver. Thus an ounce of silver—480 grains—would be worth $480 \div 371.25$.

the act of July 6, 1939, he was directed to buy at a price of 71.11 cents per fine ounce all silver offered by domestic producers.

During the period of the Second World War, the Treasury found it necessary to shift its policy from silver purchases to sales and loans from its reserves. In many war industries, silver was found to be an ideal substitute for copper and other scarce metals in numerous employments, and the requirements of those industries, added to the normal requirements of manufacturers of silverware and other artistic products, far exceeded the market supply. To ease the stringency in the market, therefore, the Treasury, in March, 1942, discontinued its purchases of foreign silver, and subsequently made arrangements to lend to the war industries its "free" silver stock—that not required as reserves for outstanding silver certificates. As these actions were not sufficient to relieve the acute shortage of silver, Congress, by legislation enacted on July 12, 1943, authorized the Treasury to sell or lease all its stock of monetary silver, provided that it maintain "at all times the ownership and the possession or control within the United States of an amount of silver of a monetary value equal to the face amount of all outstanding silver certificates." Sales were not to be made at any price less than 71.11 cents per fine ounce.

TABLE 2
GOLD AND SILVER MONETARY STOCKS, 1934-1946^a
(Dollar amounts in millions)

June 30	Gold	Silver	Ratio of silver to total stocks
1934	\$ 7,856.2	\$ 898.2	10.3
1935	9,115.6	1,463.1	13.8
1936	10,608.4	2,249.5	17.5
1937	12,318.3	2,542.1	17.2
1938	12,963.0	3,066.4	19.1
1939	16,110.1	3,605.2	18.3
1940	19,963.1	3,939.6	16.5
1941	22,624.2	4,148.7	15.5
1942	22,736.7	4,306.3	15.9
1943	22,387.5	4,298.5	16.1
1944	21,173.1	3,947.9	15.7
1945	20,213.0	3,685.8	15.4
1946	20,269.6	3,508.8	14.8

^a Gold valued at \$35 per ounce, and silver at \$1.29+ per ounce.

Source: *Treasury Bulletin*.

With the conclusion of the war, the silverites in Congress once again began to push toward their ultimate goal of bringing the Treasury offering price for silver to \$1.29 per fine ounce. Temporarily, however, they were willing to compromise at an intermediate point, the compromise being embodied in legislation enacted on July 31, 1946, which directed the Treas-

ury to buy domestic silver mined after July 1, 1946, at a price of 90.5 cents per fine ounce. The legislation authorized the Treasury to sell any "free" silver it might hold at a price not less than the buying price, and the Treasury announced that it would sell at 91 cents per fine ounce, the differential of one half cent to cover handling and other expenses.

The data of Table 2 show how far short of the 25 per cent objective the silver component of the monetary stock has remained in the period during which the silver purchase policy has been in effect.

The Present Monetary System of the United States

In the United States, the gold-coin standard has been officially disestablished and the probability of its restoration is slight. The requirements of a gold-bullion standard, discussed in Chapter 2, are not fully met, yet it seems illogical to hold that the present monetary system of the United States is of a fiat character—especially so in view of our voluminous gold reserves and our acceptance of membership in the International Monetary Fund.

The existing monetary institutions and regulations give our system the complexion of a gold-bullion standard—but only in a limited way. The dollar was declared to be equal to 15 5/21 grains of gold nine-tenths fine by the President's proclamation of January 31, 1934. A gold market continues to exist, but it is by no means a "free" market. The Treasury will release gold for use in industry and the arts, and to the federal reserve banks for exportation or "earmarking" in settlement of international obligations, at its fixed price of \$35 per ounce plus mint and handling charges; and it will buy unlimited quantities of gold from importers and from domestic producers at the same price reduced by the mint and handling charges.

Government credit money and bank credit money are not redeemable in gold, but it seems reasonable to say that their purchasing power is kept at par with that of gold. If a person has a legitimate reason for buying gold, as for use in industry, the Treasury will accept any type of credit money in exchange for it; and when the Treasury buys gold, it is willing to make payment in any type of credit money. Were our credit money not at a parity with gold, it would be profitable to smuggle gold into the country. But the sale of smuggled gold at a profit is obviously impossible, as no industrial user of gold will pay more than \$35 in credit money for an ounce of it when he is able to obtain as much as he needs at the Treasury at that price (allowing, of course, for the mint and handling charges). More positive evidence of the parity of our credit money with gold is the fact that it has equal purchasing power with gold in foreign countries. If, for example, a person buys a foreign currency to the amount of \$10,000, he makes payment in credit money to the bank which deals in foreign exchange, although it may be necessary for the federal reserve banks to export \$10,000 in gold to cover the transaction.

All the foregoing considerations lead one to the conclusion that the United States is maintaining, not a fiat standard, but a type of system based upon gold which may best be called—as we have already labeled it in the caption of the preceding division of this chapter—a *limited gold-bullion standard*.

TYPES OF AMERICAN MONEY

Standard Money.—If we accept the proposition that the United States now maintains a limited gold-bullion standard, then we necessarily conclude that the monetary gold stock held by the Treasury represents the total supply of standard money available in the country. This stock amounted to \$20,267,000,000 at the end of July, 1946, but only a small part of it really belonged to the Treasury without encumbrances. On the same date, the federal reserve banks reported total gold certificate holdings (including treasury gold credits) of \$18,105,481,000, which represented a lien upon the Treasury's gold of equal amount. At the same time, there were still outstanding \$50,000,000 of "old" gold certificates which the people were called upon to surrender during the year 1933. While it will not be necessary for the Treasury to pay out gold when these certificates turn up, the fact that they are still outstanding prevents an equal amount of treasury gold from being classified as "free." Of the remaining gold held by the Treasury at the end of July, 1946, \$156,039,431 were held in reserve for the greenbacks and for the treasury notes of 1890, and \$1,800,000,000 belonged to the Exchange Stabilization Fund, leaving approximately \$155,000,000 unencumbered.¹⁵

Government Credit Money and Bank Notes.—In Table 3 are listed the various types of credit money, other than bank demand deposits, in circulation outside the Treasury and the federal reserve banks on selected dates in the period 1929–1946. The list makes our monetary system appear much more complex than it really is, for three of the varieties shown are now in the process of retirement. The treasury notes of 1890, which were issued in the purchase of silver under the terms of the Sherman Act of that year, have been in the process of retirement since 1900; the national-bank notes have been slowly disappearing from circulation since 1935; and the federal reserve bank notes are being eliminated in accordance with the provisions of the act of June 12, 1945. As these three types of money turn up at the federal reserve banks, they are sent to the Treasury for cancellation and destruction.

Further simplification of our monetary system could be easily accomplished. A reasonable program of simplification would call for the elimination of the United States notes, the silver certificates, and the silver dollars. The United States notes—the greenbacks originally issued during the Civil War—were continued in circulation to please the inflationist interests many

¹⁵ *Federal Reserve Bulletin*, Sept., 1946, pp. 1025, 1031.

decades ago, but their present retention serves no useful purpose. It is probably too much to hope for the elimination of the silver dollars and certificates, in view of the perennial power of the silver bloc in Congress, but they too have long since been outmoded and remain only as a confusing and awkward element in our system.

TABLE 3

HAND-TO-HAND MONEY IN CIRCULATION, SELECTED YEARS, 1929-1946*

(In millions of dollars)

Type	June 30, 1929	June 30, 1934	June 30, 1939	June 30, 1943	June 30, 1945	June 30, 1946
Gold coin.....	81	—	—	—	—	—
Gold certificates.....	935	150	72	57	52	50
Silver dollars	44	30	42	84	125	140
Silver certificates.....	387	401	1,454			
Treasury notes of 1890....	1	1	1	1,650	1,652	2,026
Subsidiary silver.....	284	280	361	610	788	843
Minor coin.....	115	119	155	236	292	317
United States notes.....	262	280	266	322	323	317
Federal reserve notes.....	1,693	3,068	4,484	13,747	22,867	23,973
Federal reserve bank notes	4	142	26	584	527	464
National-bank notes.....	653	902	186	132	120	114
Totals.....	4,459	5,373	7,047	17,421	26,746	28,245

* Outside Treasury and federal reserve banks.

Source: *Banking and Monetary Statistics*, p. 49, and *Federal Reserve Bulletin*.

If the American monetary system were fully simplified, only four types of money would remain—the standard gold bullion, the federal reserve notes, the subsidiary and minor coins supplied by the government, and bank demand deposits. These types would be found adequate to satisfy all the functions of money.

Demand Deposits.—From the viewpoint of volume, the principal element in the monetary system of the United States consists of bank demand deposits. Middle-of-the-year statistics of these for the period from 1929 to 1946 are presented in Table 4. The totals, it should be noted, exclude interbank deposits, deposits of the federal government, and cash items in process of collection. Interbank deposits are excluded because they are maintained chiefly for reserve purpose rather than for spending, and cash items in process of collection are deducted because they represent checks already drawn against demand deposit accounts which have not yet been charged against the drawers' balances. On the other hand, the deposits of the federal government ought not to be excluded if one is to have a full picture of the total demand deposit currency available at any time—indeed, for a complete picture, one should take into consideration not only the deposits of the federal government maintained at the commercial banks but also those

which it maintains at the federal reserve banks, since all these funds are available for immediate spending. Nevertheless, the data, as presented, are significant in showing the total purchasing power in the form of demand deposits available to all individuals and institutions other than the commercial banks themselves and the federal government.

TABLE 4
DEMAND DEPOSITS OF ALL BANKS, 1929-1946^a
(In millions of dollars)

<i>June 30</i>	<i>Amount</i>
1929	\$22,540
1930	21,706
1931	19,832
1932	15,623
1933	14,411
1934	16,694
1935	20,433
1936	23,780
1937	25,198
1938	24,313
1939	27,355
1940	31,962
1941	37,317
1942	41,870
1943	56,039
1944	60,065
1945	69,053
1946	79,476

^a Demand deposits, excluding interbank and United States government deposits, less cash items in process of collection.

Source: *Banking and Monetary Statistics*, pp. 34-35, and *Federal Reserve Bulletin*.

LEGAL TENDER

The Joint Resolution of June 5, 1933, declared that "all coins and currencies of the United States (including Federal Reserve notes and circulating notes of Federal Reserve banks and national banking associations) heretofore or hereafter coined or issued, shall be legal tender for all debts, public and private, public charges, taxes, duties, and dues, except that gold coins, when below the standard weight and limit of tolerance provided by law for the single piece, shall be legal tender only at valuation in proportion to their actual weight." Of all the types of money commonly used in the United States, therefore, only bank demand deposits lack the legal-tender quality.

Chapter 6

BANKING AND CREDIT

The study of the principles and techniques of modern monetary systems cannot proceed far without an introductory survey of the functions of banking institutions, for, as we have already had occasion to mention, banks rather than governments are the principal creators of money in the modern world. The national government designates and customarily issues the standard money of a country, and it usually undertakes the minting of fractional coins, but it delegates to the central and commercial banks the power to issue the principal kinds of credit money. The analysis of bank money—notes and demand deposits—must, therefore, be prefaced by a preliminary examination of the position and functions of the commercial banks and of the central bank or banks. We shall find it advantageous to describe the general nature of banking, the various kinds of banks, and the place of credit and credit instruments in banking operations.

Banking in General

BANKS AND BANKING

The terms *bank* and *banking* do not lend themselves to precise definition, for the reason that a great variety of financial institutions participate in fulfilling one or more of the operations generally regarded as "banking functions." Even the standard encyclopedias and dictionaries do not attempt, on the whole, to state exactly what a bank is. If the lending operations of banks are emphasized, then it appears that such institutions as investment trusts, life insurance companies, and sales finance companies must be classified as "banks"; if banks are looked upon essentially as receivers of deposits, then "investment banking" appears to be a misnomer, since investment "banking" houses do not receive deposits; and if the capacity of an institution to create money is singled out as the dominant characteristic of a bank, then national governments must be designated "banks" and the only other banking institutions would be the commercial and central "banks."

Although it is impossible to define the terms *bank* and *banking* to conform to all points of view, definitions for the purpose of this textbook may be hazarded. *A bank*, let us say, is an institution whose principal operations

are concerned with the accumulation of the temporarily idle money of the general public for the purpose of advancing it to others for expenditure; and banking, therefore, is the business of institutions so described.

Analysis of the Definition.—Our definition of a bank is worthy of analysis. As an "institution," a bank may be an enterprise operated by an individual as sole proprietor, or it may be a partnership, a corporation, or other type of association. The "principal operations" of a bank are concerned with the accumulation of the temporarily idle money of the general public. This portion of the definition has the effect of excluding such financial institutions as life insurance companies from the banking category, since the chief operation of insurance companies is to protect their policyholders and their beneficiaries against various hazards. To insurance companies, therefore, the collection as premiums of the idle money of policyholders and its use in lending and in the purchase of securities are only incidental to their basic purpose.

The "accumulation" by banking institutions refers to their bringing together in a common fund or "pool" the temporarily idle money of the general public—money which in the absence of banks would presumably be kept or hoarded by the individual owners. The period in which the money may be "temporarily idle" may be a long or a short one—the fund or pool includes, at the one extreme, the rapidly moving balances of businessmen in checking accounts, and, at the other, the savings balances of individuals who accumulate purchasing power over a long period of years for their old age.

Banks gather temporarily idle money "for the purpose of advancing it to others for expenditure." This phrase emphasizes the lending function of banking institutions, for banks do not use the money which they accumulate to buy land, buildings, machinery, raw materials, and so on, but they lend the money to others for such purchases and for similar purposes. The lending by banking institutions is undertaken, on the whole, to gain a return in the form of interest and dividends, and not to control the business of the borrower. Thus a holding company can scarcely be classified as a banking institution, since, in selling its securities to the public and using the proceeds to buy the securities of other corporations, its objective is to gain the power to direct the business operations of subsidiary corporations.

The definition, it should be noted, does not limit the concept of banking to deposit-receiving institutions. Thus many varieties of financial institutions which do not receive deposits may properly be regarded as banks. Investment houses which sell stocks and bonds to the general public and pass the proceeds along to the issuing corporations are truly banks. Likewise the banking classification properly includes such lending institutions as credit unions and savings and loan associations whose funds are raised chiefly by the sale of shares; the sales finance companies, which accumulate money for lending by the sale of their stock, by borrowing at the commer-

cial banks, and by selling short-term obligations in the open market; and the investment trusts, which sell their securities to the public and invest the proceeds in the securities of other corporations, not to gain control, but to give the advantages of diversified investment to their own security holders.

Finally, we must emphasize the fact that the definition, because it is designed to be comprehensive, necessarily glosses over the special significance of each of the different classes of banks. Especially must one recognize that the definition is not sufficiently precise to mark out the extraordinary role of the central and commercial banks, for with them, as we shall see, the money-creating function far surpasses in importance the pooling function.

TYPES OF BANKING

An attempt to place the various kinds of banking institutions in snug classes offers almost as many difficulties as does the wording of definitions of banks and banking. The reason for this is that a single institution, which is generally recognized by the public as a "bank," may simultaneously engage in several varieties of banking operations. Thus the First National Bank of Anytown is likely to be a conglomerate institution—a "department store of banking"—in which separate departments undertake distinct types of banking work; at one and the same time it may be a "commercial bank," a "savings bank," an "investment bank," and a "mortgage bank." As much as can be done in the classification of banks, therefore, is to indicate the essential features of each kind of banking—remembering always that specific institutions cannot easily be singled out as exclusive representatives of a distinct type of banking.

Commercial Banking.—A commercial bank is distinguished by the fact that it receives deposits from the general public which are repayable on demand upon the written orders of the individual depositors. Any bank which maintains "checking accounts," therefore, is properly included among the commercial banks of the country.

Until recently, the granting of short-term loans for productive purposes was generally looked upon as a second essential characteristic of the commercial banks. In other words, the commercial banks were expected, as a matter of course, to use the money accumulated through the receipt of demand deposits for advances to businessmen on short term for productive operations. Because, however, the commercial banks—or the "commercial departments" of conglomerate banks—have vastly expanded their activities to include the purchase of large volumes of long-term securities and the extension of many varieties of loans, to attribute to commercial banking a unique interest in short-term productive lending is no longer appropriate. What is more, other types of financial institutions which have never received deposits subject to repayment on demand have become important sources of short-term productive loans; these include the sales finance companies, the production credit associations, the cattle loan companies, commercial paper houses,

acceptance dealers, and various agencies of the federal government, such as the Commodity Credit Corporation, the Reconstruction Finance Corporation, and the banks for cooperatives.

Since it no longer seems appropriate to regard the granting of short-term productive loans as an essential feature of commercial banking, a new appellation—such as, possibly, *short-term production banking*—should be coined to describe those banking activities which are primarily concerned with short-term productive lending. A new term of this kind would emphasize the distinction between the activities of commercial banks in maintaining demand deposits, and the activities of commercial banks and other financial institutions in granting short-term productive loans.

Central Banking.—A central bank, such as each of the federal reserve banks of the United States, theoretically falls within the category of commercial banks, since it receives deposits repayable on demand upon the written orders of its depositors; but because a central bank is endowed with far-reaching powers normally beyond the scope of the "ordinary" commercial banks, its operations must usually be separately treated in any discussion of banking theory and practice. The unique position of central banks in modern banking systems will be briefly described at a later point in the present chapter, and central banking operations will be subjected to detailed analysis in later chapters.

Savings Banking.—The distinguishing feature of a savings bank is that it receives from its customers deposits which are not subject to payment upon the written orders of the depositors. Savings banks customarily reserve the right to require notice for the withdrawal of deposits, although, in practice, the notice requirement is usually waived. Nevertheless, they do not recognize written orders of depositors to transfer deposits to others, as do the commercial banks. In other words, the depositor or his agent must appear in person at the savings bank to make a withdrawal, and he must present a passbook, a certificate of deposit, or similar record.

Investment Banking.—An investment bank is an institution which assists business corporations and governmental bodies to raise money through the sale of stocks and bonds for (usually) long-term productive purposes. The customary procedure of investment banks is to purchase from corporations and governments entire security issues and to reoffer them for sale at a somewhat higher price to their clients. The security merchandising operations of the investment banking houses should not obscure the fact that they perform the usual banking function—that they accumulate the temporarily idle money of the general public and pass it on to others for expenditure.

Consumption Banking.—A consumption or consumers' bank is one which makes loans to individuals to enable them to acquire consumption goods. Institutions of this type may accumulate their loan funds by the receipt of deposits, by the sale of their own stock or shares, or by borrowing

from other institutions; the class includes, among others, the personal finance companies, the sales finance companies, the industrial banks (such as the Morris Plan companies), and the credit unions.

Mortgage Banking.—The term *mortgage banking* is often applied to those banking operations concerned with the direct negotiation of loans upon the security of individual mortgages for the acquisition of urban and rural real estate. Thus savings and loan associations engage in mortgage banking in granting loans to their shareholders for the acquisition of residential and business property, and the national farm loan associations similarly when providing funds to farmers for the acquisition of farm lands and buildings.

Mortgage banking cannot be fully differentiated from investment banking, on the one hand, and from consumption banking, on the other. A major share of the work of investment banks is the distribution of bonds issued according to the terms of mortgage indentures; and consumption banking obviously includes the granting of loans for the acquisition of houses for residential purposes, whether or not such loans are secured by mortgages.

Summary.—By way of summary, attention should again be called to the fact that the individual modern "bank" is not a simple institution—that, to the contrary, many banks engage in two or more varieties of "banking." Thus if a bank receives deposits subject to repayment on demand upon the written orders of its depositors, it engages in commercial banking; if it also receives deposits of savers not repayable on demand, it undertakes savings banking functions; if it participates in "merchandising" issues of government securities, it extends its operations to investment banking; if it grants short-term loans to businessmen for productive operations, its activities in this direction may be labeled short-term production banking; if it extends consumption loans, it engages in consumption banking; and if it grants advances for the acquisition of real estate upon the basis of mortgage security, it invades the field of mortgage banking.

Credit

NATURE OF CREDIT

Credit is so inextricably interrelated with money and banking that a preliminary survey of banking cannot be complete without an analysis of the nature and use of credit. Banks in general are so vitally concerned with the extension, use, and extinguishment of credit that they are frequently referred to as "merchants of credit."

Credit may be defined as *the right to receive payment or the obligation to make payment on demand or at some future time on account of the immediate transfer of goods*. As the origin of the term implies (*credere*, to trust), credit is based upon the faith or confidence which the creditor

reposes in the ability and willingness of the debtor to fulfill his promise to pay. When faith or confidence is present, the creditor is willing to give goods in the present in consideration of the debtor's promise to pay—or, alternatively, in consideration of an order to pay which is acknowledged or accepted by the debtor; and the debtor is willing to incur a debt in order to obtain present goods.

In a credit transaction, the "right to receive payment" and the "obligation to make payment" originate at the same time; indeed, the two phrases merely describe the transaction from the respective points of view of the creditor and the debtor. The creditor obtains a "right to receive payment" for the goods which he gives, and the debtor incurs an "obligation to make payment" in acquiring the selfsame goods. The term *debt* is frequently used in reference to the debtor's obligation to make payment, but it must be remembered that, to all intents and purposes, debt and credit are synonymous terms. Hence it is possible to say that a creditor sells on credit, or that he extends credit, or that he gives present goods in consideration of a debt owing to him; and that a debtor buys on credit, or that he receives a credit, or that he obtains present goods by incurring a debt.

The "goods" which are acquired in the present in a credit transaction may consist of physical assets, such as commodities and real estate, money, or "rights." When money is obtained on credit, the intent of the debtor is usually to use the money immediately to obtain physical assets, so that, ultimately, the transaction is one wherein physical assets are obtained on credit. In many instances, however, the debtor obtains money on credit, not with the intention of using it himself for the acquisition of physical assets, but with the intention of advancing it to others for such a purpose—and this, of course, describes the general procedure of banking institutions.

"Rights" have a prominent place in the extension, use, and extinguishment of credit. Indeed, a credit itself is a "right"—the right of the creditor to receive a stipulated payment from the debtor at a specified time or upon demand. But the "goods" which are received by the debtor in the present may also consist of rights, as when the promise to pay of the debtor is given in exchange for a promise to pay of the creditor. Exchanges of rights are especially important in banking operations, and they are typified by the procedure of commercial banks in granting loans to customers. The customer gives the bank a promissory note—places in the hands of the bank the right to receive payment at a designated time—and the bank grants the customer the right to draw checks upon it in the amount of the loan. In investment banking, again, the investment bankers, when underwriting a bond issue, sign an agreement with the issuer promising to pay for the entire issue at a designated time, and in return they receive the bonds which are themselves the issuer's promises to pay interest and principal. Likewise, when a commercial bank borrows at a central bank, the commercial bank gives the central bank the right to receive payment at a specified time, at

the same time receiving the right to draw upon the central bank on demand. And when commercial banks buy obligations of the federal government, they acquire the right to receive payment of interest and principal upon the obligations, while they give to the Treasurer of the United States the right to draw checks upon them in the amount of the purchase price.

TYPES OF CREDIT

The varieties of credit may be classified in numerous ways—according to the status of the debtor, according to the status of the creditor, according to the time for which the credit is granted, and so on; but the most fruitful classification is that which is based upon the status of the debtor, since such a classification usually indicates the use to which the credit is put.

In the first place, a distinction is usually made between public and private credit. *Public credit* comprises the promises to pay of governmental bodies, that is, their acquisition of goods in the present in return for promises to pay in the future; and *private credit* refers to the promises to pay of all nongovernmental debtors. Among the subclasses of private credit, the most significant are bank credit, commercial credit, and consumption credit. *Bank credit* comprehends all kinds of promises to pay of banking institutions, including demand deposits, time deposits, notes, bankers' acceptances, cash letters of credit, debentures, and bonded obligations. Frequently, the term *bank credit* is restricted in use to refer only to the demand deposit liabilities of the commercial banks, and one must constantly be on guard to recognize the employment of the term in this restricted sense. As a subclass of bank credit, *central bank credit* is of outstanding importance in modern monetary systems; it includes the central bank's circulating notes and its deposit liabilities, the latter consisting chiefly of the reserve balances of the commercial banks.

Commercial credit is the general class including the debts or promises to pay of enterprisers or businessmen incurred or given in the present acquisition of goods to be used in productive operations. The subclasses of commercial credit are almost limitless in number, and it is frequently impossible to avoid overlapping them. Only a few of the subclasses need be mentioned here, as they will suggest other possible groupings. Thus *mercantile credit* refers to the promises to pay of wholesale and retail merchants given in the acquisition of stocks of goods for sale and in meeting current expenses; *industrial credit* comprises the debts of manufacturers and other primary producers; *agricultural credit* includes the promises to pay of farmers and farm organizations which originate in the present acquisition of goods, such as seed, feed, fertilizer, and fencing, for agricultural production; and *capital credit* is the present acquisition of long-term productive facilities, such as land, buildings, and machinery, against promises of enterprisers to pay in the future.

Finally, *consumption credit* comprises all the debts which are incurred

by individuals who prefer to acquire consumption goods immediately by giving their promises to pay rather than to defer the acquisition until sufficient funds are available.

CREDIT OF COMMERCIAL AND CENTRAL BANKS

The demand deposits of the commercial banks—that is, “bank credit” in the restricted sense—and the note and deposit liabilities of central banks are types of credit which must be marked out for special consideration. There are two reasons for such emphasis: first, the demand deposits of the commercial banks and the notes of the central bank are *money*—by far the most voluminous types of money found in modern monetary systems—and the deposit liabilities of the central bank are largely the *reserves* of the commercial banks and as such govern the capacity of the commercial banking system to maintain demand deposits; and, second, the credit of commercial and central banks represents the principal source of all other kinds of credit.

In the first place, the demand deposits of the commercial banks and the notes of the central bank are money, because they are commonly used and generally accepted as mediums of exchange. Here, then, we have a remarkable phenomenon: credit and money, as one might say, merge, and *what is basically a promise to pay money becomes money itself*. Demand deposits and notes are truly promises to pay—the “debts” of commercial banks and the central bank respectively—but these promises are so highly respected by the people that they are willing to give their goods freely in exchange for them.

Second, all other kinds of credit have for their principal foundation the credit of commercial and central banks. This means, in general, that the capacity of merchants, manufacturers, farmers, consumers and others to obtain goods in the present against promises to pay in the future is largely conditioned by the capacity of the commercial and central banks to give their own promises to pay in the form of demand deposits and notes. Suppose, for example, that a retail merchant buys merchandise from a wholesaler on terms which allow him 60 days in which to make payment. The acquisition of merchandise against the promise to pay in 60 days is a mercantile credit. But how can the wholesaler grant this credit? Perhaps he previously purchased the merchandise from a manufacturer on 60 days’ time—so that one mercantile credit is, as it were, based upon a second mercantile credit. But suppose that the manufacturer must pay cash for his raw materials, for the services of his employees, and for other current expenses. How can he meet such cash outlays and at the same time wait 60 days for payment for the goods which he sells? The answer is that he can operate in this manner if he has a supply of money readily available to meet his costs—money chiefly in the form of bank promises to pay—or if he is able to obtain a supply of money. If his available supply of money is inadequate, he may ask a commercial bank to give him the right to draw checks for

additional amounts against it in exchange for his promise to reimburse it at some future time, say, in 60 days. The promise of the manufacturer to repay the bank may be labeled an industrial credit, but the promise of the commercial bank to honor the checks of the manufacturer is bank credit. Thus it may be said that the bank credit supports the industrial credit and the two extensions of mercantile credit. What is more, the capacity of the commercial bank to accede to the request of the manufacturer depends upon its reserve balance with the central bank and the possibilities of having that balance increased through action of the central bank, so that central bank credit has an even more vital part to play in the erection of a credit structure.

In a similar way, the capacity of all kinds of noncommercial banking institutions to grant loans and to purchase securities is largely dependent upon their ownership of demand deposits and bank notes and their capacity to have the volume of their holdings of these bank promises to pay enlarged. A large portion of the consumption and short-term production loans granted by sales finance companies, for example, is made possible by the acquisition of bank demand deposits in exchange for the promises to pay of the finance companies—in other words, by the borrowing of the finance companies at the commercial banks; investment banking houses often borrow from the commercial banks to make payment for the security issues they underwrite, and they depend upon the sale of the securities to the public to provide the means for the repayment of the loans; and savings banks must limit their loans and security purchases according to the amount of their cash balances, which, again, are usually in the form of demand deposits with the commercial banks.

CREDIT INSTRUMENTS

Although credit is quite intangible in character, it is usually evidenced by records, documents, and instruments of miscellaneous kinds. The use of credit instruments facilitates the building of a credit structure. Thus if a buyer of goods gives the seller a promissory note binding himself to make payment in money in 60 days, the seller may obtain bank credit by discounting the promissory note with a commercial bank, and the commercial bank, in turn, may borrow by rediscounting the note with another commercial bank or with the central bank. In much the same way, a savings bank which has used the money deposited by its customers in purchasing corporation or government bonds may, if it is in need of money, shift the credit to other individuals or institutions by selling the bonds in the market.

Book Accounts.—An extremely common type of credit instrument is the *book account*, which is nothing more than an entry in the accounting records of a business concern recording an obligation to make payment or a right to receive payment. When a sale is made "on account," for example, the seller "debits" the account of the buyer, and the buyer "credits" the account of the seller. The accounts, of course, are supported by certain

evidences of the transaction, such as invoices and shipping documents. The demand and time deposits of banking institutions are important types of book accounts. Here again debits and credits are involved. A bank credits the account of its customer when it receives a deposit from him—that is, it records its obligation to pay—and the customer, on his part, debits the account of the bank. Although book accounts are extremely popular as credit instruments, they are not—with the notable exception of bank demand deposits—easily transferable from original creditors to others. Bank demand deposits are obviously exceptional because of the widespread use of checks by which the right to receive payment from the commercial banks can be conveyed from person to person.

Negotiable Instruments.—*Negotiable instruments* comprise a variety of credit instruments of outstanding importance. Two principal types of negotiable instruments are recognized, namely, *promissory notes* and *bills of exchange*. To be truly negotiable, the notes and bills must be prepared according to the forms prescribed by law, and if they are so prepared, they enjoy special privileges not granted to other kinds of property.¹ Promissory notes include the credit moneys issued by national governments and the notes of central banks, the written individual promises to pay given by buyers to sellers in some lines of business, the promises to pay given by borrowers at banking institutions, and the short-term promissory obligations which are sold by some corporations through middlemen (called “open-market commercial paper”). The bills of exchange include all kinds of checks, such as those drawn by individual depositors upon the commercial banks, bank drafts drawn by individual commercial banks upon others, cashiers’ checks, international sight drafts or money orders, and travelers’ checks; trade drafts (which become trade acceptances) drawn by sellers of goods upon buyers; commercial drafts, which may be drawn by any creditor upon his debtor regardless of the origin of the debt; and the drafts drawn upon banks according to the terms of commercial letters of credit.

Bonds.—Book accounts and negotiable instruments are used chiefly in the extension of credit for short periods of time, although they may be used for long-term credit transactions. The principal long-term credit instrument, however, is the *bond*. A bond is, like a promissory note, a promise of the issuer to pay principal and interest at a specified time, but, unlike the promissory note, it is subject to numerous limitations and restrictions which are set forth in a contract—known as an *indenture*—negotiated between the issuer and a trustee.

Corporate Stock.—Some authorities, in classifying the various kinds of credit instruments, include among the long-term instruments the stock issued by corporate enterprises. Since stock represents ownership in a corporate enterprise, however, its inclusion as a credit instrument is seriously to be questioned. It is true that certain types of preferred stocks have

¹ See below, pp. 119–121.

characteristics which resemble those of bonds, but even preferred stock represents ownership rather than debt. In those instances where corporations undertake to repurchase or "pay off" their stock at the option of its holder, the stock might well be regarded as a type of credit instrument; such is the usual procedure of savings and loan associations and credit unions in respect to their outstanding shares.

The Commercial Banks

In many countries, the commercial banks are of outstanding significance because they provide the principal kind of money in circulation, namely, demand deposits. Business firms, governmental bodies, nonprofit organizations, and individuals find it convenient to keep a portion of their money balances as demand deposits with the commercial banks. They may reclaim the deposits at a moment's notice, and, what is more, they are able to draw checks against them in making payments to creditors living in distant places—a convenience which government money and bank notes do not afford.

Long ago it was discovered by bankers that the deposits of their customers, though repayable on demand, would not all be called for payment simultaneously; hence they have found it a safe procedure to keep only a portion of the deposits as reserves and to lend the remainder. Depositors, it is true, do not maintain accounts merely for the benefit of the commercial banks; they establish such accounts to be able to draw checks against them. But they continually receive payments in checks and hand-to-hand money which they do not want to keep about their homes and places of business. For safety, they place such funds in their demand accounts. Thus a commercial bank can generally anticipate that current additions to deposits will roughly balance current withdrawals.

Commercial banks go further than this. Not only do they establish demand deposit accounts in favor of those customers who deposit money with them, but they also *create* demand accounts for customers who negotiate loans with them. The process may be illustrated as follows: A customer comes to the bank with \$500 in coins and paper money and says that he would like to deposit it and have the privilege of withdrawing it whenever he chooses. The banker, in effect, says, "I will give you a credit on my books, against which you may draw checks up to \$500 at any time." Now suppose that a second person comes to the bank to borrow \$500 for three months for business purposes. In granting the loan, the banker might well say, "You may draw checks against me for \$500 at any time." Each of these transactions obviously results in the appearance of a demand deposit account on the books of the bank—one account comes about by a deposit, whereby the customer exchanges money which he already has for the right to draw against the bank; and the other is *created* by the bank at the moment that the loan is granted. Should we examine the demand deposit ledgers of a

commercial bank, we could not discover, without a full explanation from the banker himself, what proportion of the account balances arose through the deposit of other kinds of money, and what proportion was created in the granting of loans.

FUNCTIONS OF THE COMMERCIAL BANKS

The foregoing sketch of the operations of the commercial banks suggests the services they undertake for modern economic society. In the first place, like any banking institution, they pool the temporarily idle money of the public for the purpose of making it available to others for expenditure. In the absence of the commercial banks, it is likely that the current money balances of individuals and organizations would be retained as individual hoards, and such hoards would not be spent by their owners nor would they be made available to others for spending. The commercial banks, therefore, bridge the gap between those who have money for which they have no immediate use and those who have projects in which borrowed money could be used productively. Suppose, for example, that a certain industry is entering a slack period. As it curtails expenditures upon production, and as it collects payments upon sales previously made, its cash balances expand. Suppose that, at the same time, another industry is entering a period of peak production, so that an extraordinary amount of money is needed for expanded productive operations. It would seem reasonable, in this situation, to transfer the surplus money from the first industry to the second—and such a transfer is made possible through the intermediary of the commercial banks. If the first industry deposits its idle money with the commercial banks, they are in a position to create demand deposits in the name of the second industry.

In the second place, by creating new demand deposits in the process of granting loans, commercial banks “monetize credit.” In this capacity, the commercial banks substitute their own promises to pay for individual promises to pay. A businessman who is not well known may have difficulty in buying goods in the present against his own promises to pay in the future; but if his reputation is favorably regarded by a commercial bank, the bank may be willing to accept his promise to pay in exchange for its own promise to pay, which is more widely acceptable. Thus the credit of the businessman is “monetized” when the bank opens a demand deposit account for him in exchange for his promissory note.

Third, the commercial banks provide a highly convenient kind of money. By means of a complex range of facilities which they have established, they make possible the payment of money obligations regardless of size by the mere transfer of slips of paper, and such “slips of paper” may be used whether payer and payee occupy adjacent places of business or whether they are thousands of miles apart. The unparalleled convenience of demand deposit accounts as mediums of exchange can be readily understood if the

expense, bother, and even danger of making a large payment, say \$50,000, by the delivery of hand-to-hand money is compared with the simple action of writing a check for that amount.

Finally, the commercial banks serve as custodians of the idle money balances of the general public. The average individual fears to keep on his person, in his home, or at his place of business a quantity of hand-to-hand money in excess of his current needs, because of the ever-present danger of loss or theft. Excess funds can, therefore, be entrusted to the commercial banks for safekeeping, with the assurance that they can be reclaimed when needed.

RESPONSIBILITY OF THE COMMERCIAL BANKS

The special capacity of the commercial banks to create new money in the form of demand deposits when granting loans, and to curtail the money supply in extinguishing demand deposits through the calling of loans, places upon them grave responsibility with respect to the expansion and contraction of business activity. To the extent that newly created demand deposits are spent in hiring idle factors of production to increase the output of industry, the commercial banks act wisely in granting loans; but to the extent that such deposits are used merely in bidding up the prices of the factors of production already employed, the lending operations of commercial banks must be regarded as pernicious. In the former instance, the welfare of the general public is promoted in the availability for consumption of larger supplies of goods; but in the latter instance, the public is forced involuntarily to save, that is, to curtail consumption, because of the higher prices of goods which result from the superabundance of purchasing power.

Aside from the power of commercial banks to create and extinguish demand deposit money in total, further responsibility devolves upon them because they are in a position to choose which enterprises and industries shall be favored and which shall be allowed to go begging. Whether or not their power as arbiters of economic destiny is used wisely depends upon the intelligence, the integrity, and the foresight of the banks' executive officers. A too cautious attitude may seriously obstruct the healthy economic development of a community; and at the other extreme, an attitude of prodigality may lead to a reckless expansion of favored enterprises, which will bring losses to the employees and stockholders of such enterprises as well as to the depositors and stockholders of the banks.

The Central Bank

In each country in which a central bank has been established—and almost all countries now have such institutions—it plays a dominant role in the determination of the monetary and credit structure. It is generally charged with far-reaching responsibilities in respect to "monetary policy" or

"credit control"; that is to say, it is expected to adopt intelligent monetary policies and to govern the expansion and contraction of money and credit in conformity therewith.

In most countries, the central bank is the exclusive issuer of the principal kind of hand-to-hand paper money, namely, bank notes; indeed, the notes of the central bank, in the majority of countries, comprise the only kind of hand-to-hand paper money in circulation. Again, the deposit liabilities of the central bank represent the principal portion of the reserves of the commercial banks and therefore govern the capacity of the commercial banks to expand their demand deposits. In this respect, the central bank is usually regarded as the "lender of last resort" since it is expected to have the capacity to grant further loans when all other sources of credit have been exhausted. The central bank, moreover, is the principal fiscal agent of the national government. Because of the enormous volume of government financial operations in modern times—operations which profoundly effect every phase of economic life—the advice of the central bank respecting fiscal policies and the material assistance which it extends to the national government are of great importance.

In an examination of the banking structure of any country, one should have little difficulty in recognizing the central bank. There is usually only one central bank in each country, although exceptions to this rule occur, as in the United States where our central banks, the federal reserve banks, are twelve in number. Even in the United States, however, the Federal Reserve *System* may be reasonably thought of as a single central banking institution. Again, a national government usually participates intimately in the affairs of its central bank, often as stockholder, and often appointing some or all of the managerial personnel; and even in those instances where no governmental stockholding or managerial rights exist, there is always a close "working relationship" between the central bank and the national treasury. Because of the special responsibilities of the central bank, its profit-seeking motives are often subject to curbs by legislation, as in restrictions upon the payment of dividends. And, in the matter of legislation, the general operations of the central bank are usually more circumscribed by the letter of the law than are the operations of other banking institutions.

Chapter 7

BANK NOTES

As late as a century ago, the major function of commercial banks was thought to be the lending of their credit in the form of their own notes—paper promises to pay on demand gold or some type of government money. Other operations were not generally regarded as profitable enough in themselves to enable commercial banks to remain in existence. The situation has now completely changed, for the issuance of bank notes throughout the world is now limited almost exclusively to the central banks.

A bank note may be defined as the formal written promise of a banking institution to pay to the bearer on demand a specified sum of another kind of money. Notes are intricately engraved and printed on a special kind of paper to promote easy recognition and to prevent counterfeiting. Every adult American at one time or another (it is hoped) has come into possession of notes issued by the federal reserve banks. They differ little from other types of paper money, and, as a matter of fact, they are passed in exchange without particular thought as to their character. We think of them merely as "money." The federal reserve notes are typical of modern bank notes.

As a rule, the money in which payment is promised is gold or some other form of government money. But in those countries where gold does not circulate freely, a promise to pay gold becomes meaningless; and the promise to pay some form of government paper money is also without great significance if the government money in turn is not redeemable in gold. And if the bank notes themselves are standard money, the promise to pay is purely a fiction.

Qualities of Bank Notes

As in the case of any other kind of money, the quantity and quality of bank notes must be carefully regulated if they are to serve rather than to harm economic society. History is replete with examples of bank notes which were improperly conceived and controlled and which, through depreciation and defaults, brought heavy losses to their holders; and nowhere has this been more common than in the United States.

In general, bank notes will serve economic society adequately if they are endowed with two important qualities—*parity* and *elasticity*.¹ By the parity of bank notes is meant their equal purchasing power with the standard money of a country. If, however, the bank notes themselves are the standard money, then their purchasing power should be kept uniform with that of other kinds of money in circulation. By the elasticity of bank note issues is meant their capacity to expand and contract in quantity according to the changing need of hand-to-hand money.

A miscellany of devices and regulations may be employed to assure the parity and elasticity of bank notes, and these are worthy of examination.

PARITY OF BANK NOTES

The parity of bank notes has normally been protected by one or more of the following devices: making them easily redeemable in standard money, making them legal tender for the payment of public and private obligations, establishing specific limits as to the quantity which may be issued, and providing a guaranty of the national government.

Redeemability.—The first of these devices is an obvious one. If bank notes promise the payment of standard money, whether gold coin, gold bullion, or some type of government paper money, parity of purchasing power between them and the standard money will be best maintained by ready fulfillment of the promise. When full gold standards were being maintained, bank notes were almost invariably redeemable in gold at the issuing bank and often at the national treasury; but nowadays when bank notes, in effect if not by the operation of law, have become standard money in so many countries, the principle of redemption, as we have indicated, is an absurdity. In the United States, however, it is possible to say that the federal reserve notes are kept at par with the standard gold-bullion reserves in so far as the Treasury will accept them in the sale of gold at its fixed price to anybody who has a right to possess it.

Bank Notes as Legal Tender.—The designation of bank notes as legal tender for the payment of public and private obligations has been a common means of promoting parity. Most of the countries of Europe have for decades endowed their bank notes with legal-tender prerogatives, although the United States did not fall in line until 1933.

The legal-tender quality, however, does not give full assurance that notes will circulate at par, although it will tend to keep them in circulation.

¹ Many authors have listed a third necessary quality of bank notes—"safety" or "security." Safety or security is distinguished from parity in that the former refers to the capacity of the banking institution actually to fulfill its promise to pay. At a time when bank notes were redeemable in gold or in some other form of standard money, the concept of safety was important; but at the present time when the bank notes of so many countries are irredeemable (at least for domestic purposes), to speak of a bank's "capacity to fulfill its promise" seems to be beside the point. Laws which regulate the issue of bank notes still require the holding of reserves of gold, government bond collateral, and other assets, but such regulations are designed to limit the quantity of notes, rather than to make them "safe."

Creditors are required to accept them at par for obligations already contracted, but they may designate a means of payment other than bank notes in any new contracts they make. And sellers, of course, are not obligated to accept legal tender in exchange for their goods; hence they may also demand another type of money, or they may accept bank notes only if offered at a discount.

If the government is willing to accept bank notes at face value in the payment of taxes and other public dues, its consent will make an important contribution to their parity. Almost everybody has occasion to pay taxes, and the bank notes may be saved for that purpose. If, however, the quantity in circulation is excessive, individuals may be willing to accept only a sufficient amount to pay their tax obligations and refuse others, causing them to pass at a discount.

Limitation of Supply.—If bank notes are not fully and immediately redeemable in standard money, they may be kept at par by a careful limitation of their supply; or, if they are the standard money, limitation of supply will assist in sustaining their purchasing power. As long as the quantity outstanding is regulated according to the needs of the people for hand-to-hand money, there is little likelihood that they will be refused in exchange for goods or that they will be accepted only at a discount.

Governments have devised many methods of controlling the quantity of bank notes in circulation. (1) The removal of the note-issue right from the individual commercial banks and its concentration in the hands of the central bank is itself a means of limiting the volume of note issues. (2) Another method is to set the maximum amount of notes which a central bank or a group of central banks may issue. Thus the "fiduciary issue" of the Bank of England is determined in this manner, although that institution may turn out additional notes on the basis of a 100 per cent gold reserve. And the national banks of the United States, when they exercised the right to issue notes, were limited in their issues to the amount of their paid-in capital. (3) A highly popular method of limitation is to require the issuing bank to segregate specified assets in designated amounts according to the volume of notes it has outstanding. In this regard, a required gold reserve equal to 25 per cent, 35 per cent, 40 per cent, or some other designated proportion of the face value of the outstanding notes has been most common. Sometimes issuing banks have been required by law to limit their note issues by the segregation of government bonds, commercial paper, or other assets such as foreign exchange instruments; and often various combinations of gold, government bonds, and other assets are employed as limiting devices. (4) The issuance of bank notes only in the larger denominations is another means of controlling their supply, for it is customary for people to deposit bills of large denominations in the banks and to retain money of small denominations for current use. Thus the federal reserve notes are not issued in denominations of less than five dollars. (5) Finally, the territory in which

notes may circulate may be restricted, so that those reaching "foreign" territories will be gathered up and returned to the issuing bank for retirement. This limiting device is also typified in the regulations respecting the federal reserve notes, since one reserve bank is not permitted to pay out the notes of the other eleven reserve banks unless it is willing to pay a tax equal to 10 per cent of their face value.

Government Guaranty.—To assure the circulation of bank notes at par, national governments sometimes guarantee them. By giving its guaranty, a government undertakes to be responsible for the notes should the issuing bank fail in its obligations. Guaranteed bank notes thus become, on the whole, equivalent to government paper money. In the United States, the national-bank notes and the federal reserve bank notes were guaranteed by the federal government, and the federal reserve notes continue to enjoy such a guaranty.

A government guaranty may be of great importance if a full gold standard is in operation and the notes are redeemable in gold coin or bullion, for the government must fulfill the redemption promise if the issuing bank is unable to do so. If, however, the country employs a fiat standard, the importance of the guaranty becomes open to question, although presumably, should the issuing bank collapse, the government would give its own irredeemable paper money in exchange for the notes. On the other hand, the bankruptcy of a modern central bank is hardly to be expected, for it would likely occur only in the event of the bankruptcy of a national government itself.

ELASTICITY OF BANK NOTES

The elasticity of bank notes is of outstanding significance, because in most countries bank notes represent the chief form of hand-to-hand money in circulation. In certain periods of the year, as during the Christmas shopping season, the use of hand-to-hand money increases greatly, and additional supplies should be forthcoming without delay. The government may supply increased quantities of subsidiary coins at such times, but the central bank must be prepared to "pump" additional bank notes into the currency stream. Likewise, when the need of hand-to-hand money falls off, the excess notes should flow quickly back to the issuing bank for temporary retirement.

In some respects, measures taken to safeguard the parity of notes may militate against their elasticity, and this is obviously true of the regulations, already discussed, designed to limit the total quantity outstanding. Thus if a central bank is required to keep reserves of gold equal to a large percentage of its outstanding notes, it may not have sufficient "free" gold to permit of much expansion.

Seasonal Elasticity.—It has not been difficult, in general, to make bank note issues sufficiently elastic to take care of normal seasonal demands. The

statutes regulating them may be drawn on the basis of reasonably precise estimates of the maximum quantity which will be required at any time during the year. In fixing a gold-reserve requirement of 40 per cent, for example, the authorities expect to have gold to make possible additional issues without embarrassment. Similarly, when the total permitted issue is stipulated as in Great Britain, the maximum is made large enough to take care of normal conditions.

As for contraction, the printing of notes only in the larger denominations is of assistance in removing from circulation any which may be superabundant. Territorial limitations, such as those which apply to federal reserve notes, also aid in drawing notes out of circulation. Another device which speeds the retirement of notes is the rule, sometimes enforced, that notes may not be counted as part of the required reserves of banking institutions.

Emergency Elasticity.—On occasion, an extraordinary demand for hand-to-hand money may arise, as in times of panic when the solvency of the banks is in doubt, and when people are anxious to have hand-to-hand money in their own possession. Everybody who owns a bank account presumably has the right to withdraw it on demand; and this right usually applies to time deposits as well as to demand deposits, as it is not customary to require notice of withdrawal for either. Nothing, one might say, is more conducive to panic than a confession of inability on the part of the banks to supply hand-to-hand money when it is required.

It is strange, therefore, that bank note regulations often do not provide a simple means by which an extraordinary expansion can rapidly take place. In those countries such as Great Britain where the fiduciary issue is fixed in amount and additional notes may be issued only on the basis of a 100 per cent gold reserve, special action of the government is required to increase the note issue in a significant amount—and such action is likely to lay stress upon the difficulties in which the banking system finds itself. Those countries which require a specific gold reserve, such as the United States, find panic growing when the reserves fall toward the permitted minimum. Special permission may be granted for expansion though reserves fall below the minimum, as by the payment of a tax, but such devices merely call attention to the grave state of affairs.

Some decades ago, monetary theorists were convinced that short-term commercial paper—consisting of the promissory notes and bills of exchange used by businessmen in obtaining credit for current productive purposes—should be held as collateral against outstanding bank notes, rather than gold and government bonds, or perhaps with a small amount of gold. It was their belief that an abundance of commercial paper would always be available, and that expanding business activity in times of prosperity would lead to the creation of large additional supplies. As a matter of fact, extraordinary bank note expansion is likely to be necessary, not only in periods of pros-

perity, but also in periods of depression, and especially so if banking crises develop. In a country such as the United States where checks are widely used, the need of additional monetary mediums in time of prosperity is much more likely to be met by the expansion of bank demand deposits than by the issue of large quantities of new bank notes. And in periods of depression when businessmen are not borrowing, there may be a shortage of commercial paper; moreover, though a goodly supply may exist, there is no assurance that it will be in the hands of the central bank which is responsible for bank note expansion.

In summary, therefore, we may say that though it is doubtless desirable for the central bank to segregate assets according to the volume of its outstanding notes, the type of assets to be segregated should be subject to variation according to changing conditions. If only a limited supply of government bonds is available, then it is probably desirable to use commercial paper; or if commercial paper is scarce, government bonds should be employed. One fact is clear: the assets to be held as collateral should be available in sufficient abundance to make a manifold expansion of bank notes possible in times of national emergency. The bank note issues, in a word, should be elastic enough *to make possible their use in paying out the entire account of every depositor in every bank in the country*. As each account represents a valid claim for hand-to-hand money, bank notes should be readily forthcoming to meet the claim of the depositor if he wants to convert the deposit into hand-to-hand money. Should elasticity of this degree be provided, banking panics would be curbed at their inception.

Bank Note Issues in the United States

NOTE ISSUES BEFORE THE CIVIL WAR

Notes of the Banks of the United States.—The first Bank of the United States, which operated under a federal charter from 1791 to 1811, was granted the authority to issue notes to the amount of its capital stock, namely, \$10,000,000; and the second Bank of the United States, whose operations extended from 1816 to 1836, was empowered to issue \$35,000,000 of notes, also the amount of its capital stock. The note issues of both national banks were well managed, and they provided a money of good quality at a time when metallic circulating mediums were scarce. The fact that they were redeemable in specie and receivable for all payments due the federal government contributed much to their general acceptability. Nevertheless, they were permitted to pass out of existence when the charters of the two national banks were not renewed.

Notes of State Banks.—Experience with the note issues of state banks was not so happy. In the separate periods of operation of the two national banks, the volume of notes issued by the state institutions was held in check, because the national banks would not accept notes which were not redeem-

able in specie, and because they frequently returned notes to the issuing banks for redemption; but, at other times, the state banks often lost all sense of propriety and all concern for solvency by issuing quantities of notes far beyond their capacity to redeem. The state legislatures enacted certain limitations upon banking operations, but usually they were inadequate and so poorly enforced that bankers were able to indulge in reckless practices with little hindrance. Because all banks had the privilege of issuing notes, literally hundreds of different types of notes were in circulation. The notes were not uniform in size, denomination, or design, and it was often extremely difficult to discover which were good and which worthless. In such circumstances, counterfeiting flourished, so that a great number of spurious notes circulated side by side with the legitimate issues. In many instances, moreover, the notes of failed banks often continued to circulate for months and years after their issuers had gone out of existence. The complexities of the situation are indicated by the fact that a "counterfeit detector" published in 1839 described 1,395 types of counterfeit or altered notes thought to be in circulation.

The situation, nevertheless, was not one of unrelieved blackness. In New England in the 1820's and thereafter, the soundness of the notes in circulation was promoted through the operations of the "Suffolk Bank system" whereby out-of-town banks were persuaded or browbeaten into keeping deposits with the Boston banks for the redemption of their notes. The "safety-fund banks" of New York, established according to the terms of its law of 1829, were required to make annual contributions to a common pool whose resources were to be used to pay off the notes and other liabilities of failed banks. And the banks organized under the free-banking laws—beginning with that of Michigan of 1837—were restricted in the amount of their note issues to the face value of certain designated types of collateral to be deposited, as security for noteholders, with a state official. Such reforms, however, were not permitted to reach their full fruition, for Congress swept away the "rag-bag money" of the state banks by placing a tax of 10 per cent per annum on the face value of their notes. The tax went into effect on July 1, 1866, and, as it made the circulation of notes prohibitively expensive, they soon disappeared from the channels of commerce.

NATIONAL-BANK NOTES

Between 1866 and 1914, the only bank notes in circulation in the United States were those issued by the national banks chartered by the federal government according to the provisions of the National Bank Acts of 1863 and 1864. The policy of the legislation of 1863-1864 was to encourage the establishment of a nation-wide system of "unit" banks, rather than a single banking institution operating under federal charter such as the first and second Banks of the United States. In the ensuing decades, therefore, thousands of charters were issued for "unit" national banks—and such charters,

of course, continue to be issued at the present time. Each national bank was empowered to buy bonds of the federal government—those having the “circulation privilege”—to deposit them with the Treasury, and to issue notes in its own name upon the security of the deposited bonds. The bonds were to be sold to provide funds to redeem the circulating notes of any bank which could not otherwise meet its obligation. Other regulations required each bank to maintain a redemption fund with the Treasury equal to 5 per cent of the face amount of its outstanding notes, to redeem its own notes upon presentation, and to accept at par the notes of all other national banks. In addition, the notes were made a prior lien upon the assets of the issuing bank, they were unconditionally guaranteed by the federal government, and they were made receivable for all public dues except customs duties.

The regulations amply protected the parity and safety of national-bank notes, but they were such as to deprive the issues of any important measure of elasticity. Indeed, the national-bank notes have often been described as perversely elastic, the quantity in circulation expanding when the need of hand-to-hand money was falling off, and contracting when the need increased. In a period in which the quantities of all other kinds of hand-to-hand money were closely dependent upon the output of the mines—including, as they did, only gold coins, subsidiary and minor coins, gold certificates, and silver certificates—the lack of elasticity in the bank note issues was the source of constantly recurring difficulties. The linking of the quantity of bank notes to the current financial operations of the Treasury was the principal defect in the regulations. If the Treasury found it necessary to issue bonds to meet deficits, a plethora of bank notes might be available, but if, on the other hand, the Treasury decided to call some of its outstanding bonds for redemption, the bank note circulation had to be curtailed. Thus the management of the national debt was made a pre-eminent factor in determining the availability of bank notes, even though there could scarcely be any direct relationship between the size of the national debt and the public need of hand-to-hand money.

The issue of federal reserve notes in 1914 removed all reasonable grounds for the continued circulation of national-bank notes, yet it was not until 1935 that action was finally taken to retire them. In that year, all outstanding bonds having the “circulation privilege” were called for redemption, the national banks left with the Treasury sufficient sums for the retirement of such of their notes as were still in circulation, and the Treasury assumed direct responsibility for the withdrawal of the notes from circulation as they turned up at the federal reserve banks.

FEDERAL RESERVE ISSUES

The Federal Reserve Act, which was adopted on December 23, 1913, provided for the issuance of two new varieties of bank notes by the federal reserve banks: federal reserve *bank notes* which were simply to replace the

national-bank notes, and federal reserve *notes* which were to provide the full advantages of an elastic currency system. Because the latter have become of outstanding importance as the principal kind of hand-to-hand money in circulation in the United States, they are worthy of detailed analysis, and we shall devote the following division of this chapter to them; the former we can dismiss quickly.

It was the intent of the founders of the Federal Reserve System to get rid of the national-bank notes painlessly by having the federal reserve banks buy up the federal bonds having the "circulation privilege." The federal reserve banks could then issue their own bank notes on the security of the bonds, or they could exchange them for other bonds not having the "circulation privilege." The national banks were to notify the Treasury of their willingness to sell the bonds, but none did, and thus the plan miscarried. The federal reserve banks bought some of the circulation-privilege bonds in the open market, and issued bank notes against a portion of them, but only \$10,000,000 of the notes were in circulation at the end of 1917.

Though the federal reserve bank notes failed to achieve the objective for which they were originally designed, they were pressed into service on three other occasions for other purposes. In 1918, they were used to replace the silver certificates which had to be retired so that the Treasury, under the terms of the Pittman Act, could sell a portion of our silver reserves to Great Britain; in 1933, special issues were authorized on an emergency basis to meet the extraordinary demand for hand-to-hand money incident to the banking crisis; and in December, 1942, and the early months of 1943, approximately \$660,000,000 of the notes were issued to meet the wartime demand for hand-to-hand money.

Although the 1942-1943 issues bore the labels of the federal reserve banks, the liability for the notes was immediately assumed by the Treasury, the Treasury defending the arrangement by pleading its interest in "economy"—by using the bank notes which had been printed in 1933, it was avoiding the costs of printing other types of money. The arrangement, however, led to charges that the Treasury was indulging in new issues of "greenbacks," and gave rise to fears in some quarters that the federal government was embarking upon a program to finance its war costs by means of printing-press money. The Treasury's subsequent action in retiring the bank notes as they became unfit for further circulation seemed to demonstrate the purity of its intentions; nevertheless, the criticism of the "economy issue" had its effect, for many members of Congress realized that the Treasury could at any time arrange with the federal reserve banks for additional issues of what might well turn out to be fiat money. Such a power, many members felt, should not rest indefinitely in the hands of administrative officials. Accordingly, Congress, by the act of June 12, 1945, specifically terminated the authority of the federal reserve banks to issue federal reserve bank notes.

Federal Reserve Notes

The federal reserve notes were designed as a type of hand-to-hand money that would have the elasticity which national-bank notes so sorely lacked. The panic of 1907 had clearly proved the need of a type of money which could be rapidly expanded to meet emergency requirements, for banks throughout the country had suspended payments, and many communities had found it impossible to obtain a sufficient quantity of circulating mediums. Federal reserve notes were to be issued, not on the basis of bonds whose volume depended upon the exigencies of treasury financing, but on the basis of commercial paper which, it was thought, would always be sufficiently plentiful to make possible any necessary degree of expansion.

RESERVE AND COLLATERAL REQUIREMENTS

Under the Federal Reserve Act, as originally adopted, the federal reserve banks were required to maintain a gold reserve equal to 40 per cent of the face value of all federal reserve notes in circulation. This requirement remained in force until 1934 when, in view of the seizure by the federal government of all monetary gold, the Gold Reserve Act provided for the maintenance of required reserves of the federal reserve banks in gold certificates rather than in gold coin or bullion. A further important change was brought about by the act of June 12, 1945, which reduced the gold certificate reserve requirement to 25 per cent of the face value of outstanding notes.

The original Federal Reserve Act also required the federal reserve banks to pledge commercial paper as collateral in an amount equal to 100 per cent of the face value of their outstanding notes; moreover, it authorized the Board of Governors of the Federal Reserve System (then designated the Federal Reserve Board) to require the federal reserve banks to provide collateral over and above the stipulated 100 per cent if necessary "to protect" the circulating notes. Thus the total reserve and collateral requirements amounted to a minimum of 140 per cent. An amendment adopted on June 21, 1917, however, provided that federal reserve notes could be issued on the basis of gold collateral, and that the gold could also be counted in meeting the reserve requirement. The effect of this amendment was to require the pledge of assets equal to the face value of outstanding notes, of which 40 per cent had to be gold; the remaining 60 per cent could be commercial paper and gold in any proportion. These requirements continued in force until the adoption of the Glass-Steagall Act, an emergency enactment, on February 27, 1932. Because the supply of commercial paper in the possession of the federal reserve banks at that time was extremely scanty, this legislation empowered them to use any direct obligations of the United States in meeting the 60 per cent collateral requirement. The power was given for only one year, but it was renewed on several occasions and was finally made

permanent by the act of June 12, 1945. In view of the reduction in the gold certificate reserve requirement established by the act of June 12, 1945, the collateral requirement at the same time was raised to 75 per cent of the face value of outstanding notes.

At the present time, therefore, the federal reserve banks must hold a gold certificate reserve equal to 25 per cent of the face value of their outstanding notes, and they must additionally pledge gold certificates, commercial paper, and direct obligations of the United States in whatever proportions they choose equal to 75 per cent—or more, if required by the Board of Governors—of the face value of the notes.

A further provision of the law requires the federal reserve banks to keep with the Treasury a redemption fund in gold certificates equal to 5 per cent of that proportion of the face value of outstanding notes against which assets other than gold certificates are pledged; but this provision does not increase the total required reserves and collateral, for the redemption fund may be counted as a portion of the reserves.

The federal reserve notes are the only bank notes of a permanent character circulating in the United States at the present time, and, as has been mentioned, they represent the most important element in our monetary system except for bank demand deposits. Because of their importance, it is desirable to adjudge their soundness with respect to parity and elasticity, the criteria which we have named as necessary qualities of a good note issue.

PARITY OF FEDERAL RESERVE NOTES

In respect to parity, the federal reserve notes at the present time are in the same position as the various types of government credit money. They are freely interchangeable with other types of money, they are receivable at par by the federal government for all obligations due it, they are receivable at par by the federal reserve banks and by member banks in the Federal Reserve System, they are legal tender for the payment of public and private debts, and they are unconditionally guaranteed by the federal government. In the sense mentioned elsewhere, they may be said to be at par with gold, for a person who is privileged to obtain gold at the Treasury will find that \$35 in federal reserve notes will be accepted as payment for an ounce of the metal.

ELASTICITY OF FEDERAL RESERVE NOTES

Seasonal Expansion.—The federal reserve notes have fulfilled the expectations of their creators so far as their elasticity to meet seasonal needs for hand-to-hand money is concerned. The mechanics of issuing the notes are such that the supply in circulation can be changed very quickly. In the brisk shopping season before Christmas, for example, an increased need of hand-to-hand money is felt by the commercial banks in several ways. Merchants draw larger sums to “make change,” many individuals deposit less of their

salaries and wages, and others draw down their accounts to meet the special expenses which they are incurring. The supply of hand-to-hand money in bank vaults is thus reduced, and the banks turn to the federal reserve banks of their respective districts for shipments to replenish the supply.

To avoid delay in making shipments, the reserve banks keep on hand a quantity of notes ready for issue. The fact must be emphasized that federal reserve notes held by the federal reserve banks awaiting issue are mere pieces of paper; they are not assets of the reserve banks and they do not "become money" until issued. For all the notes which a federal reserve bank is in a position to issue immediately it has already turned over to the federal reserve agent, who is in charge of note issue, the gold certificates, commercial paper, and government bonds equal to or exceeding the face value of the notes.²

If the demand for notes exhausts the supply which a federal reserve bank has available, it turns additional gold certificates, commercial paper, and government bonds over to the federal reserve agent, and he releases an additional batch of notes. The federal reserve agent, who is also chairman of the board of directors of the reserve bank, keeps on hand a large volume of the unissued notes, and these he surrenders to the bank only upon receiving the required pledge of assets. In the event that the agent's supply of notes runs low, he may in turn request the Board of Governors of the Federal Reserve System to order a new shipment from the Treasury.

Contraction.—After the Christmas season and other periods when there is a heavy demand for hand-to-hand money, federal reserve notes tend quickly to return to the issuing banks for retirement. There are several reasons for the return movement. In the first place, the notes are not issued in denominations of less than five dollars, and people usually deposit in their banks the larger bills, keeping the smaller denominations such as one-dollar silver certificates for daily use. Second, member banks of the Federal Reserve System are not permitted to include federal reserve notes among the reserves which they are required by law to maintain. Thus if the amount of their vault cash exceeds their needs, they will send the surplus notes back to the federal reserve banks, either for payment of any indebtedness they may have there or for deposit in their reserve accounts. The return flow is encouraged by the fact that the federal reserve banks bear all expenses of shipment.

A third reason for the rapid retirement of excessive notes is that any one federal reserve bank is not permitted to pay out the notes of the other eleven, unless it is willing to pay a tax of 10 per cent of their face value. Notes flowing into districts other than the one wherein they were issued will in time turn up at a "foreign" reserve bank and will be returned to

² On February 20, 1946, for example, the twelve federal reserve banks held \$1,052,000,000 of unissued notes for which they had given the federal reserve agents the required collateral.—*Federal Reserve Bulletin*, March, 1946, pp. 297-298.

the issuing bank for credit. The Interdistrict Settlement Fund, in which each of the reserve banks has a deposit, is maintained at the Treasury for the cross-cancellation of notes (and for other purposes). Thus if the Federal Reserve Bank of Cleveland receives \$2,000,000 of notes issued by the Federal Reserve Bank of Chicago, it sends them to Chicago and at the same time has its balance in the Interdistrict Settlement Fund increased by \$2,000,000, while the balance of the Chicago Bank is reduced by the same amount.

Emergency Elasticity.—Whether or not federal reserve notes are normally capable of an expansion sufficient to meet panic conditions, as distinguished from fluctuating seasonal needs, was long a debatable question. Recognition was given to the fact that expansibility might be prevented either by a shortage of gold or by a shortage of commercial paper. To meet the possibility of a shortage of gold (now gold certificates), the Board of Governors is empowered to suspend the gold reserve requirements for a period of 30 days, and to continue the suspension for an indefinite number of additional periods of 15 days each. Should the power be exercised, however, the federal reserve banks would be required to pay a tax graduated according to the amount of the deficiency in their reserves. The Federal Reserve Act provides that the rate of tax shall be not more than 1 per cent per annum upon the amount of the deficiency until the reserves fall to 20 per cent, and that for each additional deficiency of $2\frac{1}{2}$ per cent or fraction the rate of tax shall increase by not less than $1\frac{1}{2}$ per cent.³ This tax provision may be clarified by the presentation of the following schedule:

*If the reserve in proportion to the
outstanding notes ranges from*

The rate of tax is

20 to 25 per cent
 $17\frac{1}{2}$ to 20 per cent
 15 to $17\frac{1}{2}$ per cent
 $12\frac{1}{2}$ to 15 per cent
 10 to $12\frac{1}{2}$ per cent
 $7\frac{1}{2}$ to 10 per cent
 5 to $7\frac{1}{2}$ per cent
 $2\frac{1}{2}$ to 5 per cent
 0 to $2\frac{1}{2}$ per cent

1 per cent
 $2\frac{1}{2}$ per cent
 4 per cent
 $5\frac{1}{2}$ per cent
 7 per cent
 $8\frac{1}{2}$ per cent
 10 per cent
 $11\frac{1}{2}$ per cent
 13 per cent

The tax is payable by the federal reserve banks, but the rate of tax must be added to the discount rates which they charge upon their loans to member banks and to other borrowers. It has never been necessary for the Board of Governors to suspend reserve requirements and to assess the tax, although the gold reserves were at a dangerously low level throughout the year 1920, and although they were again approaching the danger point in the spring of 1945 before the reserve requirement was reduced by the act of June 12, 1945.

³ The scale of tax rates was changed by the act of June 12, 1945, in keeping with the reduction in the gold certificate reserve requirement from 40 per cent to 25 per cent of the face value of the outstanding federal reserve notes.

With regard to the possibility of a shortage of commercial paper, the possibility became a reality at various times in the period from the spring of 1930 to the spring of 1933. The lack of commercial paper made it necessary for the federal reserve banks to hold gold as collateral for notes beyond the 40 per cent minimum then required by law—and this situation occurred at a time when large withdrawals of gold for exportation and hoarding were taking place. These difficulties led to the enactment of the new monetary legislation already described: that which authorized the special issues of federal reserve bank notes and of national-bank notes, and that which granted to the federal reserve banks permission to issue federal reserve notes on the pledge of direct obligations of the federal government.

The great influx of gold which followed the devaluation of the dollar in 1934, coupled with the legal provisions for the use of direct obligations of the federal government as collateral for federal reserve notes, seemed to reduce the question of possible shortages of gold reserves and collateral to a matter of only academic interest. As late as the beginning of August, 1943, the federal reserve banks were able to provide a 100 per cent gold certificate coverage for their outstanding notes. Nevertheless, the vast expansion of the quantity of notes in circulation in the following months—an expansion which amounted to approximately \$8,521,000,000 in the period from July 31, 1943, to May 31, 1945—at the same time that the gold certificate holdings of the reserve banks were being materially reduced gave rise to some fears that a substitute for federal reserve notes (such as federal reserve bank notes which, as we have seen, required no gold reserves) might have to be used. The relative tightness of the situation is indicated by the fact that the ratio of federal reserve bank reserves to their total note and deposit liabilities fell from 70.9 per cent in July, 1943, to 45.7 per cent in May, 1945. It was because of these developments, therefore, that Congress took steps, in the act of June 12, 1945, to alleviate the pressure upon the federal reserve banks by providing for the reduction in reserve requirements from 40 per cent to 25 per cent of the face value of outstanding notes. With regard to the collateral requirements, on the other hand, the prospect of shortages remains exceedingly remote now that the pledge of direct obligations of the federal government as collateral has become a permanent feature of the law; in view of the total national debt of many scores of billions of dollars, the contemplation of a possible dearth of government obligations for use as collateral becomes rather fantastic.

Chapter 8

BANK DEMAND DEPOSITS

Demand Deposits and Checks

Though the commercial banks with which the general public comes in daily contact no longer issue their own bank notes, all of them participate in the creation of a second type of bank money, namely, demand deposits. Commercial banks receive miscellaneous types of money as deposits which they agree to repay upon the written orders of the depositors; and in making loans and in purchasing investment securities, they create other deposit accounts which they also agree to pay on demand. The orders to pay of depositors are made by means of checks; hence bank demand deposits are frequently referred to as the "check currency."

In countries such as the United States, Canada, and Great Britain, where demand deposit accounts are widely used in making payments, they represent by far the most important medium of exchange. Economists estimate that at least 90 per cent of the dollar volume of monetary transactions in the United States are settled by the transfer of balances in demand deposit accounts. This estimate may seem at first glance a gross exaggeration, since we are conscious of the great mass of daily transactions—such as the purchase of food and clothing, the purchase of other items for personal use and for the home, and the payment of fares, admissions, and other charges—in which various kinds of hand-to-hand money rather than checks are used. But when we reflect that most of the large transactions—payments between corporations, the purchase of land, buildings, machinery, and securities, the payment of pay rolls, and so on—are settled by means of checks, it is apparent that the dollar volume of check payments is much greater than the dollar volume of payments made in hand-to-hand money.

DEMAND DEPOSITS AS MONEY

In the definition of money stated in the first chapter of this book, we said that a "thing" must be generally acceptable to be classified as money, and we held that bank demand deposits satisfy this requirement. Although a person may hesitate to accept a check drawn by an unknown party, he ordinarily shows no reluctance whatsoever in accepting a bank demand

deposit when offered by a buyer or a debtor. We must grant that a check does not readily pass from hand to hand, but it is merely a device by which the demand deposit, the money itself, changes hands. Normally, therefore, bank demand deposits are almost as freely acceptable as the various kinds of hand-to-hand money.

The placing of bank demand deposits in the category of money appears to be quite logical when their use is fully investigated, but the question arises as to why other kinds of promises to pay, such as bank time deposits, the book accounts of businessmen, and promissory notes, are not also regarded as money. The allocation of a special position of honor to bank demand deposits, therefore, requires an explanation why other kinds of credit do not conform with the money concept.

Bank Time Deposits.—Bank time deposits are not included as money because they are used neither as mediums of exchange nor as a standard of value. Let us contrast the use of a bank demand deposit with the use of a bank time deposit. A, who is buying furniture for his home, gives B, the furniture dealer, a check on his demand deposit, ordering the bank to pay all or a part of his balance to B. When the latter deposits the check, let us say, in the same bank, the bank merely removes the balance from A's account to B's. Now B, in paying his grocery bill, draws a check against the deposit account and forwards it to the grocer, C; and the payment B received from A is included in the deposit transferred. In brief, B employs the bank demand deposit to exchange furniture for food *without calling into use any other kind of money.*

If A holds a time deposit account, he is unable to write an order on the bank to transfer a portion of his balance to B. He finds it necessary to visit the bank, present his passbook or certificate of deposit, and withdraw his deposit in *some type of money*, possibly silver certificates or bank notes. If B also maintains a time deposit rather than a demand deposit account, he must take his passbook to the bank to deposit the hand-to-hand money received from A; and in paying his grocer, he must again present the passbook and withdraw some kind of hand-to-hand money. The time deposit accounts in these instances obviously do not serve as mediums of exchange, because they have to be converted into other instruments before the transactions can be completed.

The significance of time deposits, however, must not be underestimated. While it is not logical to speak of them as money, they may nevertheless be regarded as "potential money" in view of the ease with which they can be converted into demand deposits. Because most bankers do not require time depositors to give notice of withdrawal, the latter may at will shift balances from their time accounts to demand accounts and then proceed to use these as ordinary mediums of exchange. In a word, time depositors as a group have the power at any time to increase the total amount of money in the

hands of the public either by drawing out their balances in the form of hand-to-hand money or by shifting them to demand accounts.

Commercial Book Accounts.—What should be said regarding the many kinds of commercial credit? Is not commercial credit to be looked upon as money? A retailer buys a shipment of goods from a manufacturer or wholesaler "on account," that is, the buyer enters upon his books an obligation to pay, and the seller "charges" the buyer, expecting him to pay possibly in 30 or 60 days. But the book credit obviously is not used as a medium of exchange—it is merely a device for deferring payment. If making the entries completed the transaction, the book credit might well be regarded as money, but the conclusion of a transaction by book entries is rarely possible. The buyer still has the obligation to pay, and at the expiration of the allowed period of credit, he must use some kind of money to settle his debt.

On rare occasions, it is true, commercial book credit may be employed to complete transactions without the intervention of "true" types of money. Suppose that Company A buys \$10,000 worth of goods from Company B, and entries are made upon the books to record this transaction; and later Company B buys \$10,000 worth of goods from Company A. The obligations may be canceled without the use of money.

Such transactions, however, are quite unusual, and even in this instance, though the book credit is used as a medium of exchange, it could not well be labeled as money because it would not be generally acceptable. We have here a promise of a business firm to pay in a given period of time, and the average person would not be willing to accept such a promise in exchange for his goods. In other words, the promise of a commercial bank to pay on demand is esteemed to a much higher degree than is the promise of a business firm; and while the promises of banks to pay are ordinarily acceptable, those of businessmen are not acceptable until a thorough examination of their credit position is made.

Promissory Notes.—A final illustration of the differences between a demand promise to pay of a commercial bank and promises to pay of a nonbanking character refers to the use of promissory notes. If, instead of making immediate payment in money, A, the buyer of furniture, gives his personal note promising to pay in 60 days, the note obviously is not money because the transaction is not completed. A must still supply money to meet the promissory note at its maturity.

But suppose that B, the furniture dealer, indorses the note and passes it on in payment of his grocery bill. Is not the promissory note being used as money, since the furniture dealer is able to exchange furniture for food without the use of any "true" type of money? The answer is that the promissory note is truly a medium of exchange in this instance; nevertheless, its lack of general acceptability would prevent its classification as money. It may be that the grocer knows A and believes that he will fulfill the promise to pay; but the average person would not be conversant with A's

credit rating and would hesitate to accept the note. Even here, B may not actually complete the transaction by using the indorsed promissory note, for if A does not pay at maturity, the grocer may force B to "make good" the note by providing a money payment.

CHECKS

Nature of a Check.—A bank demand deposit may readily be used as a medium of exchange, because the commercial bank which holds it agrees to pay not only the depositor if he appears in person, but also anybody designated by him. Demand deposits are customarily transferred by written orders, that is, by the use of checks. A check may therefore be defined as *a written order by a depositor upon a commercial bank to pay to the order of a designated party or to bearer a specified sum of money on demand.*

Types of Checks.—Checks take many forms, although all forms must satisfy the conditions included in the foregoing definition. Thus *certified checks* are sometimes employed. A certified check is made out in the regular way, but it bears a special notation on its face to indicate that the bank actually holds a deposit large enough to meet it when it is presented for payment. To have a check certified, the depositor must present it to the bank for the special notation; and the bank protects itself by immediately removing from the depositor's account the face amount of the check. A certified check is sometimes required when the person offering it is not well known. One of the most common uses occurs when bids are made on government contracts. The firms making bids are required to deposit certified checks to assure the government agency of their good faith. If a bid is accepted and the successful bidder for some reason refuses to fulfill the contract, the certified check is forfeited.

Between banks, another type of check, called a *bank draft*, is used. Banks find it convenient to keep accounts with one another to facilitate their operations, and they may draw upon these accounts in the same manner as ordinary depositors. A bank draft, therefore, differs from the check of an individual only in that it is drawn by one bank upon another. In many kinds of transactions, bank drafts are more acceptable than personal checks drawn by individual depositors, and most banks accordingly "sell" drafts to their customers, usually charging a small fee for the service. Thus a person who must make a payment in "New York funds" may obtain from his bank a draft upon a New York bank with which it maintains a deposit balance.

A check drawn upon a bank by one of its own officers who has been duly authorized is known as a *cashier's or treasurer's check*. Cashiers' checks are commonly used by banks in meeting their own expenses, and, like bank drafts, they are sold to customers for use in transactions in which personal checks are not acceptable. Time depositors, who are unable to draw checks against their accounts, frequently buy cashiers' checks when they have out-of-town payments to make.

NEGOTIABILITY OF CHECKS

Negotiability and Assignability.—The widespread use of checks would be virtually impossible were it not for the fact that they have been given by law a special quality known as *negotiability*. This quality makes it possible, on occasion, for the receiver of a check to have rights in it superior to those possessed by the person transferring it. The characteristic of negotiability has been given only to checks, commercial drafts, promissory notes, and a few other commercial instruments. All other kinds of property are merely assignable; in other words, a transferee can obtain rights in the property only equal to those of the transferor.

The distinction between assignability and negotiability may be illustrated. Suppose that a person has mortgaged his home for \$5,000, that is, he has given his creditor a binding claim or "lien" against the property for that amount. This individual now decides to sell the property and sets his selling price at \$10,000. He does not tell the prospective buyer that there is a mortgage of \$5,000 against the property, and the buyer, neglecting to have the title searched, does not discover the existence of the mortgage. The buyer pays \$10,000 and later receives notice from the mortgagee that the claim of \$5,000 must be paid. The buyer could not escape the obligation though he has been misled, because the mortgage represents a lien upon the property itself, and it cannot be eliminated by a mere transfer. Here, then, is an instance of assignability, for the buyer could not obtain rights in the property superior to those of the seller.

Now consider an illustration of negotiability. A businessman makes out a check payable to "cash" or to "bearer" for \$250, signs it properly, and gives it to one of his employees with instructions to pay certain debts. The employee, however, takes the check to a clothing store, buys himself a complete wardrobe, and gives the check in payment. The employee, it is clear, has no rights in the check except to use it as his employer directed; but the clothier has no warning of this defect in the title of the employee. The check is in proper form, it is signed by the employer, and so far as the clothier knows, it may have been made out to the employee in payment of his salary. When the employer finds that he has been defrauded, he is unable to force the clothier to return the money, for, according to the law, the clothier is a "holder in due course." In other words, he has independent rights in the check—rights which the employee who transferred it did not have.

Advantage of Negotiability.—The foregoing illustrations show why the transfer of negotiable instruments is a much simpler matter than the transfer of any other kind of property. If checks and other commercial instruments did not possess the quality of negotiability, their use in commercial banking would be severely limited. Not only would banks have to be vigilant to detect fraudulent and forged checks—a necessary safeguard even when instruments are negotiable—but in addition they would have to ascertain

whether or not their customers had clear title to every check presented for cashing or deposit.

Requisites of a Negotiable Instrument.—Not every check, promissory note, and commercial draft is necessarily negotiable merely because the instrument is called by one of those names. The law requires that an instrument be drawn in a certain form to be negotiable:¹ (1) It must be in writing and signed by the maker or drawer. (2) The instrument must be an unconditional promise or order to pay a specific sum of money. Orders or promises to pay commodities or services, while they may be valid contracts and assignable as such, can never be negotiable. The promise or order to pay must be unconditional. If the money is to be paid only upon the occurrence of a certain contingency, the instrument is not negotiable. Thus a note reading "I promise to pay to bearer on demand \$500 if I receive a bequest of that amount in my uncle's will" would clearly fail to satisfy the requirement. (3) The instrument must be payable on demand or at a fixed or determinable future time. A promise to pay "when I become 30 years of age" is not negotiable, because that event may never happen. (4) The instrument must be payable to the order of a designated party or to bearer. A check payable merely "to John Jones" is not negotiable, but a check otherwise properly drawn is negotiable if payable "to the order of John Jones." The word *order* implies that the bank is to pay John Jones or anybody else Jones directs. (5) Finally, if an order is addressed to a party who is to make payment, he must be named in the instrument or indicated with reasonable certainty. A check reading simply "Pay to the bearer on demand \$500," and signed by the drawer, is not a negotiable instrument, because the party to whom it is addressed—the bank which is being ordered to pay—cannot be discovered.

Holder in Due Course.—Everybody who receives a check or other negotiable instruments is not necessarily a "holder in due course," that is, he does not necessarily stand in a position to enjoy rights superior to those of the person who transfers the instrument to him. Certain conditions must be fulfilled.² (1) The first requirement of the law is that the instrument must be complete and regular upon its face. If a check is marked by erasures, for example, it is quite irregular, and the person who receives it is amply warned of the probability of fraud. (2) The instrument must not be overdue, for a note or other instrument loses its negotiable character after maturity. (3) The receiver of the instrument must not know that the party obligated has "dishonored" it by refusing to accept it or to make payment. (4) The holder in due course must accept the instrument in good faith and for value. Thus a person who receives a check as a gift does not become a holder in due course, because he has given no value in exchange for it. (5) Finally, the receiver of the instrument must not be aware of any

¹ Section 1 of the Uniform Negotiable Instruments Act.

² Section 52 of the Uniform Negotiable Instruments Act.

infirmity in the instrument or of any defect in the title of the transferor. Had the clothier, in the illustration given above, known that the employee was told to use the check of \$250 in paying his employer's obligations, and had he accepted it nevertheless as payment for the clothing, he would not have been a holder in due course.

When the holder of an instrument is unable to satisfy all the foregoing requirements, he may nevertheless have a good title to it, but only if the person who transferred it to him had good title; in other words, he can have no rights independent of those of the person who transferred the instrument.

Indorsements.—Negotiable instruments which are payable to the bearer may pass from hand to hand without any formalities. This is true of government paper money and of bank notes which, of course, are varieties of negotiable instruments. Such paper money satisfies all the requirements of negotiable instruments, and it is payable (at least theoretically) to whoever presents it; that is, "to bearer."

When an instrument is payable to the order of a designated party, it cannot be passed from hand to hand unless he authorizes the transfer. If he wants to do so, he "indorses" the instrument by writing his name across the back. But indorsement is something more than a mechanical device by which the instrument may be passed to other parties. Any indorser makes certain warranties with respect to the instrument:³ that it is genuine and in all respects what it purports to be, that he has good title to it, and that all prior parties had the capacity to contract. A qualified indorser—one who uses the words *without recourse* in his indorsement—also warrants that he has no knowledge of any fact which would impair the validity of the instrument or render it valueless; while the unqualified indorser—as, for example, one who indorses "in blank"—warrants that the instrument is valid and subsisting at the time of his indorsement. The unqualified indorser, furthermore, places himself under the obligation to make payment upon the instrument if the party primarily liable fails to do so.

The unqualified indorser, in a word, is secondarily liable for payment, and his liability, by supplying an additional factor of safety, further promotes the use of checks and other negotiable instruments. When, for example, a person deposits checks at a bank, he is required to indorse them without qualification, and thus the bank is protected should they turn out to be worthless.

The Clearing of Checks

Let us now return to the proposition that demand deposits are to be regarded as money in the full sense of the word. We have said that demand

³ Sections 65 and 66 of the Uniform Negotiable Instruments Act.

deposits perform fully the function of an acceptable medium of exchange without any need of their conversion into other forms of money, such as government money and bank notes. It is desirable to develop this proposition further. In the illustration, we assumed that B, the furniture dealer, had an account in the same bank as A, the furniture buyer, and as C, the grocer. Thus we were able to say that B could exchange furniture for food by the mere transfer of balances in the accounts of the bank.

But the illustration may be challenged on the ground that it unduly simplifies the situation. Suppose that B maintains his account at a bank different from A's bank. Will not B's bank present the deposited check to A's bank and ask for hand-to-hand money in settlement? Or suppose that B, instead of paying for groceries, uses a check drawn upon his demand deposit account to buy a shipment of furniture from a manufacturer located 500 miles away. When the furniture manufacturer deposits the check in his local bank, will not the latter ask that hand-to-hand money be forwarded by B's bank to meet the check? If these questions must be answered affirmatively, the theory that bank demand deposits are themselves money is seriously weakened; for it must be admitted that checks for millions of dollars are daily deposited in banks other than those upon which they are drawn.

The questions, however, do not require an affirmative answer, for the reason that the banks, by means of a complex network of facilities, are able to cross-cancel the great majority of checks without the payment of hand-to-hand money. The network of facilities includes clearinghouses, the federal reserve banks, correspondent banks, messengers, and the mails. Some checks, it is true, are actually met by payments of hand-to-hand money, but such payments are necessary with respect to only a small fraction of the total volume of checks drawn.

CLEARINGHOUSES

Let us first consider the clearinghouse. A clearinghouse is nothing more than a room or an office to which the banks of a community send their representatives to exchange checks drawn upon one another. All the large cities and many smaller ones have clearinghouses in which large quantities of checks are exchanged in a few minutes as a purely routine operation.

Clearing Procedure.—The procedure may be described as follows. Let us say that in a certain city there are six banks associated in a clearinghouse. Of the checks it has received from its depositors, each bank daily sorts those drawn upon the other five banks and puts them into individual packages, at the same time preparing a statement of the total amount due from each. At a predetermined hour, representatives of the banks carry their packages of checks to the clearinghouse. Bank A brings five packages, each representing its claim upon one of the other banks, and the total representing the amount due Bank A from the clearinghouse. Each of the other five banks, in turn, has a package of checks drawn upon Bank A, and the total

of the five packages is the amount that Bank A owes the clearinghouse. If the latter total is greater than the former, Bank A must pay the difference; if the former is greater, the clearinghouse must pay Bank A. Introducing figures, we may illustrate the manner in which the clearing is made as follows:

	Checks drawn upon						Totals
	Bank A	Bank B	Bank C	Bank D	Bank E	Bank F	
Bank A brings....	—	\$ 6,000	\$ 3,000	\$ 2,000	\$ 4,000	\$ 5,000	\$ 20,000
Bank B brings....	\$ 4,000	—	7,000	5,000	3,000	2,000	21,000
Bank C brings....	2,000	5,000	—	2,000	1,000	5,000	15,000
Bank D brings....	4,000	3,000	6,000	—	4,000	3,000	20,000
Bank E brings....	5,000	6,000	4,000	6,000	—	3,000	24,000
Bank F brings....	2,000	4,000	3,000	5,000	3,000	—	17,000
Totals.....	\$17,000	\$24,000	\$23,000	\$20,000	\$15,000	\$18,000	\$117,000

The table may be summarized as follows:

Bank	Checks received (debits)	Checks brought (credits)	Debit balance	Credit balance
Bank A.....	\$ 17,000	\$ 20,000	—	\$ 3,000
Bank B.....	24,000	21,000	\$ 3,000	—
Bank C.....	23,000	15,000	8,000	—
Bank D.....	20,000	20,000	—	—
Bank E.....	15,000	24,000	—	9,000
Bank F.....	18,000	17,000	1,000	—
Totals.....	\$117,000	\$117,000	\$12,000	\$12,000

Settlement of Balances.—Banks B, C, and F must pay into the clearinghouse a total of \$12,000, and the clearinghouse must pay the \$12,000 to Banks A and E in the proportions indicated. Bank D neither pays nor receives a payment since its claim against the clearinghouse exactly balances its obligation to it. Thus \$117,000 of checks are cleared by the payment of only \$12,000. The clearing of great volumes of checks by the transfer of small balances is a commonplace of clearinghouse operations.

Before the establishment of clearinghouses, the exchange of checks between banks was usually handled by messengers, and messengers are still commonly employed to clear local checks in communities which lack clearinghouses. If the \$117,000 of checks in the foregoing illustration were to be cleared by messengers, each bank would have to employ a messenger, and each messenger would have to visit five banks, making a total of thirty visits for the community. Instead of one settlement of balances, there would be fifteen—A with B, A with C, B with C, B with D, and so on. Not only

would the system be more cumbersome, but the carrying of hand-to-hand money through the streets to settle balances would be hazardous.

In the system of clearing at present employed in the United States, it would not normally be necessary to have even the \$12,000 of balances in the foregoing illustration settled in hand-to-hand money. The accounts of the six banks with the federal reserve bank of the district could be increased or decreased by the amounts shown for net credit and net charge respectively. Thus the federal reserve bank could be notified to remove \$3,000 from Bank B's account, \$8,000 from Bank C's, and \$1,000 from Bank F's; and to increase Bank A's account by \$3,000, and Bank E's by \$9,000. The federal reserve banks perform important services in the clearing of checks, and most banks, even if they are not members of the Federal Reserve System, find it highly convenient to make use of its clearing facilities.

FEDERAL RESERVE CLEARING FACILITIES

Origin.—The Federal Reserve Act, as adopted on December 23, 1913, granted to the Federal Reserve Board the authority to act as a clearing agent for the twelve federal reserve banks, and to require the reserve banks in turn to act as clearing agents for the member banks of their districts. In first exercising the latter authority, the board ordered the federal reserve banks to be prepared by June, 1915, to serve as clearinghouses for their member banks. The reserve banks then announced their willingness to accept for collection checks drawn upon all member banks which had agreed to "remit at par." To "remit at par" means to pay the full face value of checks, that is, without deduction by drawee banks of fees or charges for the supposed expenses involved in making payment.⁴

The original arrangement was known as the "voluntary" system in that each member bank could choose whether or not it would remit at par. The voluntary system was not successful, as most of the member banks wanted to retain full discretion with respect to remittance charges. The member banks continued to clear their out-of-town checks through their correspondent banks located in the large cities, as they had done before the establishment of the federal reserve facilities.

Present System.—The voluntary system was therefore supplanted by a "compulsory" one in July, 1918. The new system, which continues in operation at the present time, is compulsory only in the sense that all member banks are required to make payment at par on checks presented by the federal reserve banks. On the other hand, they may use the facilities of the Federal Reserve System or not, as they choose. All member banks may employ the clearing facilities free of charge; and state banks not members of the Federal Reserve System may also obtain free clearing services if they agree to remit at par and to keep with the federal reserve bank of their district a balance sufficient in size to meet any charges that may be made

⁴ See below, pp. 128-129.

against them. A clearing bank may send to its reserve bank checks drawn upon banks located in any part of the United States provided that the drawee banks remit at par. The volume of checks handled in recent years is shown in Table 5.

When a federal reserve bank receives checks from a clearing bank, it classifies them according to the time that will normally be required to

TABLE 5
CHECK CLEARINGS OF THE FEDERAL RESERVE BANKS, 1933-1945
(All figures in thousands)

Year	Number of items	Amount
1933	688,933	\$157,833,692
1934	818,847	179,544,488
1935	885,190	202,989,742
1936	1,009,264	234,417,787
1937	1,044,553	255,453,609
1938	1,098,115	231,820,217
1939	1,157,140	255,937,980
1940	1,184,356	280,436,092
1941	1,265,593	362,069,226
1942	1,335,543	477,108,268
1943	1,513,070	623,431,865
1944	1,714,925	660,686,755
1945	1,851,950	688,109,266

Source: *Annual Reports of the Board of Governors of the Federal Reserve System.*

collect payment upon them. For those which can be presented to drawee banks immediately, the clearing bank receives immediate credit on the books of the reserve bank; and for others, credit is given according to "availability schedules" by which it may be deferred as long as three days. If the checks are drawn upon banks which are members of clearinghouse associations, they may be collected by the federal reserve banks through the clearinghouses in the same manner as checks brought by other banks. If they are drawn upon member banks located outside clearinghouse areas, the federal reserve banks send them by mail; if drawn upon nonmember banks, they may be presented through a member bank in the immediate vicinity or they may be sent direct.

In all cases, a bank to which checks are presented is required to make immediate payment at par. Payment may be made by authorizing the federal reserve bank to charge the account of the drawee bank; or the latter may send hand-to-hand money, with the federal reserve bank bearing the expenses of shipment; or, again, the drawee bank may draw a draft upon its account with a correspondent bank, if such a draft is acceptable to the federal reserve authorities.

Illustration of Clearing within a Single Reserve District.—The manner

in which the federal reserve facilities are used to clear checks between banks within a single reserve district may be illustrated. Let us say that the Jones Supply Company of South Bend, Indiana, receives a check of \$2,000 from the Smith Manufacturing Company of Joliet, Illinois. The former deposits the check in its demand account at Bank A in South Bend, which in turn forwards it (with others) to the Federal Reserve Bank of Chicago. The Federal Reserve Bank of Chicago then sends it to Bank B in Joliet upon which it is drawn, and Bank B, after making proper entries on its books, surrenders it to the Smith Manufacturing Company. The canceled check is evidence to the Smith Manufacturing Company that its obligation to the Jones Supply Company has been paid.

When the transaction has been completed, the books of the three banks will have been affected in the following manner:

Bank A of South Bend

Assets: Reserve with Federal Reserve Bank of Chicago	...increased	\$2,000
Liabilities: Deposit account of Jones Supply Co.increased	\$2,000

Bank B of Joliet

Assets: Reserve with Federal Reserve Bank of Chicago	...reduced	\$2,000
Liabilities: Deposit account of Smith Manufacturing Co.	...reduced	\$2,000

Federal Reserve Bank of Chicago

Liabilities:		
Reserve balance of Bank A of South Bendincreased	\$2,000
Reserve balance of Bank B of Jolietreduced	\$2,000

Interdistrict Clearing.—When a federal reserve bank receives for clearing checks drawn upon banks outside its own district, it sends them to the other reserve banks for collection. To take care of the clearing of checks between districts, the Interdistrict Settlement Fund is maintained at the Treasury in Washington under the jurisdiction of the Board of Governors of the Federal Reserve System. This clearing fund was first established in 1915, when each reserve bank was required to make an initial deposit of at least \$1,000,000. In recent years, a large proportion of the gold certificate holdings of the reserve banks have been kept with the Treasury as deposits in the Interdistrict Settlement Fund.

Each federal reserve bank wires the Board of Governors a daily statement of the total amount of checks it has received from the other eleven federal reserve banks (and their branches). That total is charged against the reserve bank sending the report, and the other eleven reserve banks are credited with the amounts they have sent it. When reports are received from all the reserve banks, a clearing schedule similar to that given above for a clearinghouse is prepared; and it is necessary only to transfer the balances between the accounts of the twelve banks.

Illustration of Interdistrict Clearing.—An illustration will clarify the use of the federal reserve facilities in the clearing of checks between banks

in different reserve districts. Let us suppose that the Jones Supply Company of South Bend, Indiana, receives a check of \$5,000 from the Casey Construction Company of Augusta, Maine. The check is deposited in Bank A of South Bend, which forwards it to the Federal Reserve Bank of Chicago. The latter then sends the check to the Federal Reserve Bank of Boston, which passes it on to Bank B of Augusta, the drawee bank, for payment. The reserve banks, at the same time, notify the Board of Governors in Washington of the transaction (with many others of a similar type).

The completion of the clearing brings about the following changes upon the books of the four banks and of the Interdistrict Settlement Fund:

Bank A of South Bend

Assets: Reserve with Federal Reserve Bank of Chicago	increased	\$5,000
Liabilities: Deposit account of Jones Supply Co.	increased	\$5,000

Federal Reserve Bank of Chicago

Assets: Gold certificates due from Treasury	increased	\$5,000
Liabilities: Reserve balance of Bank A of South Bend	increased	\$5,000

Federal Reserve Bank of Boston

Assets: Gold certificates due from Treasury	reduced	\$5,000
Liabilities: Reserve balance of Bank B of Augusta	reduced	\$5,000

Bank B of Augusta

Assets: Reserve with Federal Reserve Bank of Boston	reduced	\$5,000
Liabilities: Deposit account of Casey Construction Co.	reduced	\$5,000

Interdistrict Settlement Fund

Liabilities:		
Gold certificates due Federal Reserve Bank of Chicago	increased	\$5,000
Gold certificates due Federal Reserve Bank of Boston	reduced	\$5,000

Summary.—The foregoing survey of the federal reserve clearing facilities indicates why very little hand-to-hand money is required in the settlement of the huge volume of checks which are used as mediums of exchange every day. Checks received from a bank and checks sent to a bank are offset against each other, and only the net difference is paid or received; and even the net difference is usually taken care of by book entries. At this point, therefore, we are justified in repeating that bank demand deposits are truly money in that they do not normally have to be converted into other types of money in serving as mediums of exchange.

OTHER CLEARING METHODS

In addition to the facilities provided by clearinghouses and by the federal reserve banks, other clearing mechanisms are still available. Many banks continue to clear checks through correspondent banks located in large cities with which they maintain accounts, and this is necessarily true of most banks which have not become clearing members of the Federal Reserve System. Some checks are sent by individual banks direct to the

banks upon which they are drawn. And in many small communities which lack clearinghouses, messengers are still employed to distribute checks among the drawee banks.

Characteristics of Demand Deposits

The preceding chapter pointed out that because bank notes are the most important type of hand-to-hand money in circulation in modern monetary systems, they should be fully endowed with the qualities of parity and elasticity. The desirability of these qualities is all the greater with respect to bank demand deposits, since they far surpass bank notes in importance as mediums of exchange.

Bank demand deposits, moreover, should be endowed with a third quality, namely, *safety*, if they are to serve economic society in an adequate manner. As demand deposits represent the promise of banks to pay other kinds of money on demand, they are "safe" only if the banks have the capacity to fulfill their promise. In a word, deposits are always credit money, and if they are to remain generally acceptable, means must be provided for their conversion into standard or other legal-tender money.

PARITY OF DEMAND DEPOSITS

When we speak of parity as a desirable quality of bank demand deposits, we mean that a given dollar amount of such deposits should have purchasing power equal to that of the same amount of standard money. The parity of demand deposits has generally obtained in recent years, although the situation was quite the contrary before the establishment of the Federal Reserve System and for a few years thereafter. It was formerly a common practice for banks, when making payment, to deduct a small charge from the face of checks drawn upon them. This charge was supposed to reimburse the banks for the expense of making remittances. Even when checks were presented over the counters of the drawee banks, a reason—however specious—was often found to justify a small deduction. In consequence, demand deposits had slightly less purchasing power than had standard money of equal denominations.

Collection and Remittance Charges.—The depositor of checks, as a matter of fact, frequently had two charges made against him. Suppose, for example, that a person living in Pittsburgh, Pennsylvania, deposited in a Pittsburgh bank a check drawn upon a bank in Savannah, Georgia. The Pittsburgh bank might assess a collection charge, and the Savannah bank might levy a remittance charge. It is usually held that only the latter kind of fee or assessment destroys the parity of checks. The former type is justified in that the collecting bank would probably give immediate credit to the depositor, while it would have to wait a few days to receive payment. The collection charge would thus represent an interest payment and would

possibly include an allowance for "service." On the other hand, when checks are presented at the counter of the bank obligated to pay on demand, no deduction can be justified.

When the federal reserve authorities established their clearing facilities, thousands of banks were making deductions for remittance charges. The early clearing rules of the federal reserve banks stipulated that they would accept for collection only such checks as were drawn upon banks willing to make payment at par upon presentation; and the sending of checks by mail was declared to be equivalent to presentation at the counter of the drawee banks. The federal reserve banks, furthermore, would not undertake to collect checks for any bank which itself would not remit at par. The usefulness of the federal reserve clearing facilities was thus destined to remain limited so long as a large number of banks refused to remit at par.

Remittances at Par.—Drastic steps were taken by the federal reserve authorities to force universal par remittance. Policies similar to those of the old Suffolk Bank were adopted. Batches of checks were assembled and presented by agents at the counters of obstinate banks, and they were called upon to pay immediately in hand-to-hand money. Such a practice, instead of persuading banks to yield, aroused a great deal of resentment toward the federal reserve banks; for many bankers expected a large decline in their income should they be forced to give up the remittance charges.

In some districts, lawsuits were brought against the federal reserve banks to enjoin them from using forceful tactics; and several state legislatures passed laws specifically to permit their chartered banks to make remittance charges.⁶ The court decisions were not, on the whole, victories for the reserve banks or for the remittance-charging banks, but they prompted the reserve banks to adopt a policy of conciliation.

At the present time, therefore, the reserve banks do not attempt to compel banks to remit at par, but they perform no clearing services for nonpar banks, nor do they accept for collection checks drawn upon such banks. Hence banks on the par list must find some means outside the Federal Reserve System to collect payment on checks drawn upon nonpar banks.

The great majority of banks, and virtually all the larger institutions, now remit at par; but at the end of the year 1945, there were still 2,133 banks which had not agreed to discontinue remittance charges upon checks presented by the federal reserve banks. Most of the nonpar banks are relatively small and unimportant institutions located in communities of less than 2,500 population. As Table 6 shows, the nonpar banks are clustered in two sections of the country, namely, in the Southeastern and West Central states. The survey of December 31, 1945, discloses, on the other hand, that not a single commercial bank in New England, the Middle Atlantic states,

⁶ For a summary of these actions, see *Digest of Rulings of the Board of Governors of the Federal Reserve System* (to October 1, 1937), pp. 72-76.

Delaware, Maryland, the District of Columbia, Ohio, Indiana, Kentucky, Iowa, Wyoming, Idaho, Colorado, New Mexico, Arizona, Utah, Nevada, Oregon, and California was listed among the nonpar banks.

TABLE 6
BANKS NOT ON FEDERAL RESERVE PAR LIST, DECEMBER 31, 1945

State	Number of banks	State	Number of banks
Minnesota.....	418	North Dakota	105
Georgia.....	274	South Carolina.....	103
Mississippi.....	171	Louisiana.....	100
Arkansas.....	129	South Dakota.....	100
North Carolina.....	122	Missouri.....	76
Wisconsin.....	119	Texas.....	68
Alabama.....	117	Florida.....	66
Tennessee.....	108	Nine other states.....	57

Source: *Federal Reserve Bulletin*, February, 1946, p. 125.

SAFETY OF DEMAND DEPOSITS

Reserves.—As one means of assuring the safety of bank demand deposits, reserves must be maintained by commercial banks whether they operate under national or state charters. Depending upon the governing law, reserves may be held in the vaults of the banks or as deposits with other banking institutions. At the present time, for example, member banks of the Federal Reserve System located in the principal cities (designated “central reserve cities” and “reserve cities”) must maintain reserves equal to 20 per cent of their demand deposits, and those located outside the designated cities must keep reserves of 14 per cent of demand deposits. All the required reserves must be kept in the form of balances with the federal reserve banks of the respective districts. Member banks, as a means of self-protection, must keep additional reserves in hand-to-hand money in their own vaults to meet daily withdrawals, but the size of vault reserves is at their own discretion.

Lien upon Assets.—The safety of demand deposits also depends upon all the assets of the banking institutions in which they are held. In the event of the failure of a bank, all its depositors share in the assets upon a prorata basis before any payment whatever is made to stockholders. Neither demand deposits nor time deposits, however, represent prior liens upon the assets. If the bank has other outstanding obligations, such as cashiers’ checks, travelers’ checks, and bills payable, the holders share with the depositors.

Deposit Insurance.—As a third source of safety, insurance for deposits has been available since January 1, 1934, through the Federal Deposit Insurance Corporation, an agency established by Congress. Almost all the commercial banks of the country are insured with the FDIC, and the insurance covers any sum to \$5,000 for the individual account. When an insured bank

fails, the FDIC undertakes immediately to pay off all depositors whose accounts are \$5,000 or less, and to pay \$5,000 on all accounts which exceed that amount.

Special Pledge of Assets.—Finally, deposit accounts are sometimes specially secured, and the holders of such accounts are preferred creditors. This is particularly true of government deposits—federal, state, and municipal. In making deposits, governmental bodies commonly require the banks to pledge bonds of a specified character as a guaranty that the accounts are safe. Should a bank fail, the depositing government may reimburse itself by the sale of the pledged securities. The ratio of secured accounts to total demand deposit accounts, however, is quite low.

ELASTICITY OF DEMAND DEPOSITS

Origin of Demand Deposits.—To discuss the elasticity of demand deposits intelligently, one must understand the process by which they come into existence. This topic has already been touched upon, but it merits further examination. From the point of view of the individual bank, deposits originate (1) when customers bring hand-to-hand money to be placed to the credit of their accounts; (2) when they bring for deposit checks drawn upon other banks; (3) when the bank itself establishes deposit balances for customers in the granting of loans; and (4) when the bank itself credits the deposit accounts of those from whom it buys bonds and other investment securities.

From the point of view of the banking system as a whole, the first two of the foregoing sources of demand deposits are relatively unimportant in the determination of the elasticity of deposits. Some fluctuations in the total volume of deposits result from the receiving and paying of hand-to-hand money, but they are insignificant to the extent that they are of a seasonal character. A long-range increase in the use of hand-to-hand money may, however, have the effect of permanently reducing the volume of deposits; and, on the other hand, the deliberate "pumping" of additional hand-to-hand money into the hands of the general public would tend to cause a permanent increase in deposit volume, as people would likely deposit redundant supplies of hand-to-hand money at the banks. The deposit in one group of banks of checks drawn upon other banks has no effect upon the total volume of deposits, since the increase in the accounts of the depositors is exactly counterbalanced by the decrease in the accounts of those who draw the checks.

The important actions which determine the expansion and contraction of the total volume of demand deposits are the loan and investment operations of the commercial banks themselves. The customary manner in which a modern commercial bank makes a loan, as we have seen, is merely to place the proceeds in the deposit account of the borrower. The act of making the loan thus brings into existence a balance in a deposit account which was

previously nonexistent. When the banks are generally increasing their loans, the volume of demand deposits tends to expand in equal amount; and the paying off of loans at the banks tends to cause the evaporation of an equal amount of deposit balances.

The purchase of investment securities by the commercial banks tends to have the same effect upon the volume of demand deposits as has the granting of loans. Thus, so far as essentials are concerned, it matters little whether a bank advances \$10,000 direct to a corporation on its promissory note or whether it purchases a \$10,000 bond issued by the corporation. When banks buy securities from their customers, they usually credit the deposit accounts as in making loans; but even when they buy in the open market, the normal effect is to place demand deposits of equal amount on the books *somewhere in the banking system*.

Expansion of Demand Deposits.—An expansion in the total volume of demand deposits may take place upon the initiative of businessmen and other borrowers at the commercial banks or upon the initiative of the commercial banks themselves. In times of expanding business activity when markets are favorable, businessmen need additional bank credit with which to buy raw materials, to pay their employees, and to meet other expenses of operation. They therefore negotiate loans at the banks, and the resulting increase in the volume of demand deposits tends to be in exact proportion with the increased need of such deposits. To the extent, therefore, that the banks are able and willing to meet the requests of businessmen for productive loans, demand deposits tend to behave perfectly so far as expansibility is concerned.

The banks may initiate the expansion of demand deposits by purchasing investment securities, and, in this instance, the expansion may have no relation to the need of deposit balances. If corporations are putting out new issues of securities which are purchased by the banks, the expanded volume of demand deposits will likely be put to immediate use, since, as we have mentioned, the purchase of bonds is similar to the making of direct loans. But if the commercial banks merely purchase bonds which have been previously held by individual investors, by savings banks, by insurance companies, and by other institutions, the newly created demand deposits may well appear on the books when there is no need of them.⁶

Contraction of Demand Deposits.—Many billions of dollars of demand deposits remain upon the books of the commercial banks at all times, even in periods of severe depression. There is, indeed, no reason why all bank deposits should disappear at certain times, as there is no reason why bank notes should occasionally be totally withdrawn from circulation. The average person, in addition to keeping a certain amount of hand-to-hand money in his possession, usually desires also to maintain a bank balance of a certain

⁶ The process of demand deposit expansion and the limits of expansions are discussed in detail in Chapter 15.

size whether in good times or bad. To the extent, therefore, that demand deposits represent normal "cash balances" they need not contract at all.

Those demand deposits created by the granting of loans by the commercial banks normally contract by a reverse process, that is, by the repayment of loans by the borrowers. Hence in times of business depression, when the need of bank credit declines, bank demand deposits in large aggregates vanish from the books of the banking system. A manufacturer, for example, may borrow \$10,000 from a bank to buy raw materials in a period of prosperity. The bank creates a deposit balance in his behalf, and he uses it in making payment to his suppliers. Then as he sells the goods fabricated from the raw materials, his deposit balance is rebuilt through the payments he receives. The manufacturer may renew the loan so long as a market remains for his goods, but should a business depression develop and his customers discontinue their purchases, he might well decide to use his deposit balance to repay the bank. In that event, he would draw a check against the deposit account payable to the bank itself, and \$10,000 of demand deposits would thus disappear from the books of the banking system.

In so far as demand deposits are created by the purchase of securities by the commercial banks, contraction in times of business depression is not likely to take place rapidly, if at all. Indeed, expansion from this source may be accelerated during depression periods, because the commercial banks, finding only meager opportunities for lending, are likely to increase their holdings of bonds and other securities in order to maintain their interest earnings. Demand deposits so created tend to remain upon the books of the banks so long as the securities are owned by the banks—but the deposits are likely to lie idle for considerable periods of time.

Part II

COMMERCIAL BANKING STRUCTURE

Commercial Bank Organization

Government Supervision of Banking

Federal Deposit Insurance

Chapter 9

COMMERCIAL BANK ORGANIZATION

The Procedure of Organization

BACKGROUND

Legislative Charters.—Until almost the middle of the nineteenth century, state legislatures jealously guarded their right to grant charters to new banking institutions; and every charter had to be specially authorized by legislative enactment. This prerogative was often used for political purposes. A legislature controlled by one political party would grant no charters to groups affiliated with other parties. In many instances, moreover, state banking commissioners possessed authority to control the stock subscriptions of new banks and to determine who might and who might not buy stock; and they likewise often acted according to political motives.

The system was one which invited graft and corruption. Groups successful in obtaining charters opposed the granting of additional charters in order that they might enjoy the benefits of restricted competition. Such groups therefore not infrequently offered bribes to bring the legislators to their point of view. Hence those who desired to obtain charters were encouraged to offer even larger bribes than their applications might be granted. In consequence, there was no assurance that men having superior banking ability would be able to obtain charters.

Origin of "Free Banking."—The favoring of the few and the exclusion of the many, so far as banking was concerned, came in the course of time to be looked upon as most undemocratic. Those who were successful in obtaining charters were regarded as monopolists, the recipients of special privilege, and quite out of place in a country where everybody except slaves was supposed to be free and equal.

The opposition toward banking monopoly, and the demand for equal treatment for all, culminated in the adoption by the states, beginning with Michigan in 1837, of the so-called free-banking laws. Under these laws, anybody or any group with sufficient capital and other qualifications to fulfill the minimum requirements could obtain a charter as a matter of right. A state official—such as the "Comptroller of the Currency" in New

York—was given the power to issue new charters according to a prescribed method of procedure. The official ordinarily was given little discretion, so that a charter could not be refused if the applicants were able to satisfy the requirements of the law.

"FREE BANKING" AT PRESENT

The chartering of commercial banks under state jurisdiction has remained "free" down to the present time; and the National Bank Act, first adopted in 1863 and completely revised in 1864, also provided for free commercial banking under federal charters. Thus, in our day, any group of persons able to satisfy the stipulations of the banking codes of the state and federal governments *theoretically* has the right to establish a new banking institution.

As a practical matter, however, it is extremely difficult at the present time to obtain a commercial bank charter from the federal government and from most of the state governments. The thousands of bank failures which have occurred in recent years have convinced legislatures and bank supervisory authorities that the establishment of innumerable weak, competing banks is no source of advantage either to their incorporators or to the communities in which they exist.

Criteria for a New Bank.—To secure a commercial bank charter at the present time, the promoters must be able to show that a new bank is needed in the community where it is to be located, and that the proposed institution has reasonable prospects for success. The Comptroller of the Currency, who is the head of the national banking system, and the state superintendents and secretaries of banking make comprehensive investigations to determine whether new charters should be granted. A survey is made of the community in which the proposed bank is to operate. How many banks are already in operation there? Are they efficiently managed? What rates of interest do they charge on loans? Are their services adequate? Is there need of additional banking services? Would competition be beneficial or harmful? The government authorities consider the prospects of business expansion in the community, and the probable long-range need of additional banking capital.

Further consideration is given to the character of the proposed institution for which a charter is requested. What are the qualifications of the organizers and the proposed officers of the new bank? Have they had experience in banking? What is the financial position of the stockholders and of the proposed directors? Do they have excellent business connections, so that they will be able to bring lucrative accounts to the new institution? Will the new bank, by drawing business away from the banks already in operation, seriously weaken them?

Not only do the banking authorities take cognizance of the arguments in favor of the institution presented by the promoters, but they willingly

hear all opposing arguments advanced by the officers of existing banks as well as by other interested parties. It should be apparent, therefore, that the establishment of a new commercial bank has now become, so to say, a relatively rare privilege; in many instances, the applicants cannot satisfy the criteria suggested in the foregoing list of questions.

Application for a Charter.—As there are forty-eight state banking systems in the United States, in addition to the national system, it is impossible adequately to survey the organizational procedure and requirements of all. In the subsequent discussion, therefore, we shall confine our attention largely to the procedure followed in obtaining a national charter, and to the regulations of the national banking laws respecting capital, surplus, and similar matters.¹ It may be noted that, except for relatively minor details, the procedure and requirements are much the same with respect to state charters, particularly in the Eastern states, where the laws are strict.

The promoters of a national bank must first apply to the Comptroller of the Currency for permission to organize the bank. The application, which is made upon a standard form supplied by the Comptroller, must be signed by at least five of the prospective shareholders, preferably by several of the proposed officers or directors. The signers must submit information regarding their residence, their business interests, their "financial strength," their banking experience, and the number of shares for which they will subscribe. The application also includes a statement as to whether a bank building is to be erected or purchased, and at what cost, or, if a building is to be leased, the rental to be paid. The name of the proposed bank is stated, and the Comptroller is requested to "reserve" it. Finally, the applicants must testify that no fees or commissions have been paid or will be paid in the sale of the stock.

After the application to organize has been filed with the Comptroller of the Currency, a national bank examiner is delegated to investigate the proposal. It is his duty to file a report recommending either the acceptance or the rejection of the application. To gather information to support his recommendation, he may interview the promoters and proposed officers of the new bank, the officers of existing banks, prominent businessmen, public officials, and others whose opinions should be pertinent, and he may even call public meetings at which anybody may voice his opinion in favor of or opposed to the proposed institution. The Comptroller does not ordinarily rely exclusively upon the report of the examiner in deciding whether or not he should grant the charter; in addition, he usually calls for further information and advice from the federal reserve bank of the district, the Federal Deposit Insurance Corporation, the state banking department, and possibly other sources. If the Comptroller is satisfied as to the need of a new bank and the prospects for its success, he authorizes the promoters to proceed

¹ Most of the laws applicable to national banks may be found in Title 12, Chapter 2, of the *United States Code*.

with the organization of the bank and the acceptance of subscriptions for its stock.

Articles of Association.—After the stock of the bank has been subscribed, the organizers prepare the *articles of association*, which must be signed by at least five natural persons, and a copy of which must be filed with the Comptroller. The articles of association “shall specify in general terms the object for which the association is formed, and may contain any other provisions, not inconsistent with law, which the association may see fit to adopt for the regulation of its business and the conduct of its affairs.”² A second document known as the *organization certificate* must also be filed with the Comptroller; it is a statement giving the name and location of the bank, the amount of its capital and the number of shares, and the names and addresses of stockholders with the number of shares held by each.

Election of Directors.—When these preliminary arrangements have been taken care of, the stockholders may proceed with the election of directors. Each director is required to take an oath affirming (1) that he is the owner of the requisite number of shares; (2) that in fulfilling his duties, he will “diligently and honestly administer the affairs of such association”; and (3) that he will not knowingly violate, or permit to be violated, the banking laws of the United States. To show that this requirement of the law has been fulfilled, a *certificate of oaths of directors* must be placed on file with the Comptroller.

Other Preliminaries.—The directors, after having been qualified, usually proceed by preparing and adopting the bylaws. The bylaws may be described as a body of internal legislation which supplements the articles of association by establishing rules and regulations for the conduct of the affairs of the bank. They include provisions for the annual meeting of the stockholders, the sending of notices of meetings, and the keeping of minutes of the actions taken at meetings; regulations concerning the time and place of directors’ meetings, the number of directors required for a quorum, and the composition and duties of committees named by the board; provisions for the selection of officers, their bonding, and the designation of their duties; rules to govern the issue of stock certificates, the sale of new stock, and the transfer of stock; a statement of the hours during which the bank will remain open for business; the designation of an official seal; and the procedure for the amendment of the bylaws.

Next, the directors choose the officers of the bank, among whom there must be a president, a vice-president, and a cashier. Since a national bank must be a member of the Federal Reserve System, an application is made to purchase stock in the district reserve bank, and the stock must be paid for before the bank is permitted to begin business. As an additional preliminary, the directors must notify the Comptroller of the Currency on

² *United States Code*, Title 12, Chap. 2, sec. 21.

standard forms that the down payments required upon the stock subscriptions have been received.

Finally, when the Comptroller is satisfied that all the requirements of the law have been fulfilled, he issues a *certificate of authority to commence business*, which must be published in a local newspaper daily or weekly for sixty days. In the meantime, however, the bank may open its doors and launch its operations.

Capital and Surplus

CAPITAL REQUIREMENTS

National Banks.—The capital stock requirements of national banks vary according to the size of the cities in which the banks operate. Banks which operate in cities of less than 6,000 population must have capital stock of at least \$50,000; those which are located in cities having between 6,000 and 50,000 inhabitants must have capital stock of at least \$100,000; and those located in cities of more than 50,000 inhabitants must have capital stock of at least \$200,000. In outlying districts of cities of more than 50,000 population, the Comptroller may permit the establishment of banks with only \$100,000 of capital stock, provided that state-chartered banks in the same localities are authorized to operate with capital of that amount or less. In the period from 1900 to 1933, national banks could be established in communities of less than 3,000 population with capital stock of only \$25,000; hence many national banks with outstanding stock of approximately that amount are still in operation.

The stock of national banks must be issued in shares of not more than \$100 par value, and 50 per cent of the purchase price must be paid in before the bank opens for business. The remainder must be paid by monthly installments within six months of the date on which the Comptroller issued the certificate of authority to commence business. All subscription payments must be in cash. In addition, the law now requires national banks to begin business with a paid-in surplus equal to 20 per cent of the capital stock to cover organization expenses and the losses which may occur during the first year or two. This requirement is met, of course, by the sale of the stock at a price at least 20 per cent above its par value.

State-chartered Banks.—As in the case of national banks, most state banking codes stipulate varying capital requirements according to location. In general, state bank capital requirements are lower than those of national banks. According to a recent survey,³ banks may still be established in the smaller communities of four states—Iowa, Nebraska, Oklahoma, and South Carolina—with capital stock of only \$10,000. In three other states—Missouri, North Dakota, and South Dakota—the capital stock requirement for banks

³ For details regarding the states mentioned as well as all other states, see *Federal Reserve Bulletin*, December, 1940, pp. 1267-1274.

located in communities of small population is only \$15,000. A capital stock requirement of \$25,000 is the most common minimum for state-chartered banks. On the other hand, several states have the same minimum as the national law, that is, \$50,000, and Connecticut permits no commercial bank to be established anywhere within its jurisdiction with capital stock of less than \$100,000. A few of the states have higher requirements than those of the national law for banks located in the larger communities. In Michigan, for example, a bank established in a city of more than 300,000 population must have capital stock of \$500,000; and in California, a bank located in a city of more than 200,000 population must have \$300,000 of capital stock.

"DOUBLE LIABILITY" OF BANK STOCK

Situation before 1933.—Before 1933, most of the bank stock outstanding in the United States was subject to "double liability," that is, in the event of its failure the stockholders of a bank were additionally liable to the bank's creditors in an amount equal to the par value of the shares held by them. The belief that bank shareholders should be doubly liable was taken for granted to such an extent that the additional liability was sometimes specifically provided for in state constitutions. But the protection for depositors provided by double liability was often more mythical than real, because, in times of economic collapse, sufficient funds could not be readily found by stockholders to meet their obligation. The seizure of the property of defaulting stockholders and its forced sale only served to add to economic demoralization.

Reforms of 1933 and 1935.—A new policy regarding double liability was adopted in the federal banking legislation of 1933 and 1935. The former provided that any national bank stock issued after June 16, 1933, would not be subject to double liability. Many national banks reorganized and obtained new charters, ordinarily changing their names slightly, in order to escape double liability; but this action was hardly necessary, as the Banking Act of 1935 stipulated that any national bank might eliminate the double liability of its stock as of July 1, 1937, or at any time thereafter, by merely publishing a notice to that effect six months before the date on which the elimination was to take place.

The removal of double liability was not designed to ease the responsibility of bank stockholders and thus leave depositors unprotected; for the national banks were required, in lieu of double liability, to accumulate a surplus equal to their capital stock. In this way, the protection of depositors is supposed to be assured by having the additional capital on hand at all times, and not merely after banks have failed. Newly organized national banks, as we have said, are required to provide for a paid-in surplus of 20 per cent; and until the surplus is equal to the capital stock account, all national banks are required to carry to the surplus account semiannually 10 per cent of their net earnings before dividends are paid.

Double Liability in State Bank Stock.—Most of the state legislatures have followed the lead of Congress in removing the double-liability feature from the outstanding stock of their chartered banks. In four states—Alabama, Connecticut, Louisiana, and Rhode Island—nothing had to be done, since the stock of the chartered banks of those states had not been subject to double liability. A few states, including California, Florida, Mississippi, Montana, Oklahoma, South Dakota, West Virginia, and Wisconsin, have suspended double liability only with respect to those banks which have their deposit accounts insured by the Federal Deposit Insurance Corporation. In Florida, however, a bank with a surplus account equal to its capital stock may escape double liability without insurance; and in West Virginia, a bank must have a surplus equal to half its capital stock in addition to insurance.

In six states—Indiana, Maryland, Ohio, Texas, Utah, and Washington—constitutional amendments were adopted by popular vote either to remove the double-liability feature or to give the legislatures the power to do so; but in Illinois and Oregon, proposed constitutional amendments were defeated—in Oregon, both in 1938 and in 1940.⁴

Stockholders and Directors

BANK STOCKHOLDERS

As a rule, banking laws include no limitations as to the amount of bank stock which may be owned by individual shareholders,⁵ although it is not normally possible for a single individual or organization to own all the outstanding stock of a bank. The banking laws stipulate the minimum size of a bank's board of directors, as well as the minimum amount of stock which must be owned by each director, so that the outstanding stock must be at least in a sufficient number of hands that directorship requirements may be met.

The stockholders of a bank possess rights and privileges similar to those enjoyed by the stockholders of other types of business corporations. They have the right to receive from the bank a certificate stating the number of shares standing in their names, to sell or otherwise dispose of their stock, to inspect the bank's books and records, to participate in earnings when dividends are declared by the board of directors, to take action to prevent the bank from committing illegal and *ultra vires* acts, to subscribe to new stock issues in proportion to their current holdings, and to share in the assets in the event of dissolution. As owners, moreover, bank stockholders have the authority to determine all policies, both major and minor, so long as these are in accordance with the banking laws. In practice, the stock-

⁴ For further details, see Moody's *Manual of Investments* (Banks, Insurance Companies, Etc.), 1941, pp. a89ff.

⁵ Except for ownership of bank stock by other banks. See below, p. 156.

holders are content to choose the directors and leave to their discretion the formulation of operating policies; nevertheless, they reserve the authority to pass upon actions of a fundamental character, such as changes in capitalization, the amendment of the articles of association, and the merging or consolidation of the bank with other institutions.

The stockholders of a bank usually have an annual meeting, at which a report of the bank's activities is made, the directors for the ensuing year are elected, and general questions of policy are discussed. On questions of policy, stockholders usually have one vote for each share of stock they own; but in the election of directors of national banks, each stockholder has, for each share, as many votes as there are directors to be elected. Thus a stockholder who owns one hundred shares, in voting at an election of ten directors, would have one thousand votes, and these could be cast in total for one director, or split up in any way desired. This device, known as cumulative voting, is designed to enable the minority stockholders to obtain representation upon the board of directors.

BOARD OF DIRECTORS

Legal Stipulations.—The board of directors of a national bank must have not less than five nor more than twenty-five members; they must be citizens of the United States; and at least three fourths of them must have resided in the state, territory, or district in which the bank is situated, or within fifty miles of the bank's head office, for at least one year preceding their election. The residence requirement remains in force during the directors' term of office. Any stockholder who owns \$1,000 par value of stock in his own right may be elected to a directorship; but those holding stock as trustees for others, such as executors and guardians, may not be chosen. In the case of a national bank having only \$25,000 of capital stock, each director is required to own only \$500 par value of stock.

Duties and Responsibilities.—The directors of a commercial bank are expected to exercise "reasonable prudence and diligence" in the management of the bank; they may subject themselves to criminal penalties for certain violations of the law, and to lawsuits for damages if their negligence or infractions of the law result in losses to depositors and stockholders. Before accepting his position, a director should give full consideration to the responsibilities which he proposes to take upon himself. Absence from the meetings of the board does not ordinarily excuse a director from responsibility for actions taken by it; for in accepting a position of this kind, one is under obligation to fulfill it and not to allow it to go by default.

Specifically, it is the duty of the directors to formulate the general operating policies of the bank, to select the officers and to supervise their work, to examine the books periodically, and to decide upon the distribution of earnings. The directors need not burden themselves by assuming the responsibility of making all kinds of routine decisions, for they may right-

fully delegate much power of administration to the officers; nevertheless, they are not justified in giving the officers a free hand; that is to say, they should establish specific standards which the officers are obliged to observe. The board, for example, might permit the officers to grant individual loans to a stipulated maximum amount, but it might well reserve the right to pass upon applications for loans of larger amounts. Similarly, decisions respecting the purchase of large amounts of investment securities would ordinarily be reserved to the board. The directors do not guarantee the good faith and honesty of the officers whom they select, but if the misdeeds of officers are called to their attention—perhaps in the course of an examination of the books—they must take steps to correct the evils; otherwise they themselves might be charged with negligence.

The entire board of directors need not take action on every matter which comes within its jurisdiction, for it is possible to establish various directorial committees—such as a loan committee, an investment committee, a personnel committee, and an examination committee—whose resolutions have effect as if made by the whole board. Thus, for example, the officers may be able to have proposed loans quickly passed upon by the loan committee without having to wait for a regular meeting of the board.

Directors have another duty not mentioned in banking laws and in court decisions, but which is nevertheless of outstanding importance, namely, the duty of bringing lucrative business to the bank. Unless they possess special competence as administrators, most directors would not remain long in their jobs if their “connections” were not such as to assure profitable accounts for the bank. The existence of this “duty” explains why bank directors are almost invariably business and professional men of outstanding prominence in their respective communities.

Criminal and Civil Penalties.—Banking laws establish penalties of fines and imprisonment for certain actions of directors which are looked upon as criminal in character; such actions include the granting of loans and the donation of gifts to bank examiners, the contribution of bank funds to political parties and to candidates for public office, the acceptance of commissions for granting loans, the willful entry of false information in the books, statements, and reports, the certification of checks in excess of depositors’ balances, false advertisement with respect to deposit insurance, and, of course, fraud and embezzlement. Besides subjecting themselves to punishment as criminals, directors make themselves financially responsible to the stockholders and depositors for losses resulting from any of these actions.

Other actions, while not criminal in character, may give rise to financial liability; these include the granting of loans beyond the limits permitted by law, the payment of dividends out of capital, and all the various shades and degrees of negligence generally referred to simply as “mismanagement.”

Branch Banking

One of the most important problems which in recent times has faced commercial bankers and banking authorities in the United States is that of branch banking. The development of "free-banking" laws has been looked upon in some quarters as most unfortunate to the extent that it has encouraged the establishment of numerous small, independent banks, and has brought about a lack of unity in our banking system.

If the second Bank of the United States had been rechartered, or if the third bank proposed in the 1840's had been chartered, banking development in the United States would probably have taken a direction quite different from that which has actually been taken. For both the first and second Banks of the United States maintained branches, and had they remained, or had a third bank with branches been established, it is likely that state banking of a similar character would have developed. Under such circumstances, commercial bank organization in the United States would have come more nearly to resemble that of England, France, and Canada, as well as that of most other advanced nations, where commercial banking operations are performed by a few national institutions having "offices" scattered throughout the respective countries.

DOMINANCE OF "UNIT BANKING" IN THE UNITED STATES

Various reasons are advanced for the growth in the United States of *unit* banking—a term applied to a system wherein each banking office is independently chartered and capitalized. It has been said, for example, that our great expanse of territory accounts for this development; but the experience of Canada, which also has a great expanse of territory, belies such an explanation. Doubtless our dual system of government has been an important contributing factor, for in the early days of banking growth, each state jealously guarded its power to charter banks, and the banks chartered in one state were not permitted to operate in other states. Had the federal government received or assumed the exclusive right to charter banks, the barriers of state boundaries would not have stood in the way of branch banking. The spirit of democracy which led to the adoption of free-banking laws must also be given its proper share of responsibility for the ascendancy of unit banking. Defenders of democratic institutions argued plausibly that the right to engage in banking should not be restricted to a select few. The fear of concentration of the "money power" in the hands of a small number of institutions is a reason of the same character.

The recurrence of breakdowns in our unit banking system leads to a serious questioning of the desirability of maintaining thousands of independent banks—many of them with insufficient resources and business opportunities to operate profitably. The experience of the great branch banking houses of England, France, Canada, and other countries seems to

demonstrate the greater strength and durability of branch systems. And even when weakness develops in a branch banking system, as in Germany in the summer of 1931, reorganization may be achieved quite simply—an accomplishment which is impossible when thousands of banks must be restored as in our own collapse in the period from 1930 to 1933.

FEATURES OF A BRANCH BANKING SYSTEM

In a unit banking system, each local banking institution is a separate corporation, separately chartered, and having its own capital, board of directors, and stockholders. By contrast, a branch system resembles a chain-store organization such as the "A. & P." The "A. & P." is a single corporation, having only one board of directors, one group of stockholders, and one charter, though it operates thousands of neighborhood stores and "supermarkets" throughout the country. Similarly, if commercial banking were to be organized in the United States on a nation-wide branch basis, each "bank" would have a head office in a major city, and the local "banks" in other cities and towns would be merely subordinate offices. This does not mean that all commercial banking would be carried on within a single organization. On the contrary, it would be desirable to have a limited number of competing national branch banking institutions, say fifteen or twenty. In England, there are fifteen other than the Bank of England, with most of the banking business concentrated in the hands of the "Big Five"; and in Canada, there are ten, of which four dominate.

A branch banking enterprise, such as Barclay's in England or the Bank of Montreal in Canada, is a single corporation having a single board of directors, only one group of stockholders, and a single total national capitalization. Branches or "offices" are opened in many communities, each under the supervision of a manager who is an employee of the national institution and who is subject in all respects to the rules and regulations set down by the national board of directors and officers. Whether or not each branch has available full banking services depends chiefly upon its location. In important cities, the branches of a national institution provide most if not all of the services available at the head office itself, although the granting of large loans may require approval at the head office, and much detailed work, such as credit analysis, may be handled at the head office rather than locally. In small communities, and in the outlying districts of large cities, on the other hand, the branches are often little more than "tellers' windows" engaged simply in receiving and paying deposits and in receiving applications for loans.

PROS AND CONS OF BRANCH BANKING

Proponents of branch banking argue that it makes possible a diversification of loans whereby risks are scattered among many industries and over a wide area—an objective only limitedly attainable by unit banks. They hold, moreover, that loans granted by a branch organization are likely to be

sounder than those of unit banks because the more substantial ones are passed upon impartially at the head office without considerations of personal friendship, local patriotism, and the like. Economies of operation, they believe, are all in favor of branch organizations, including the concentration of much routine work at the head office so that duplicate departments may be eliminated, the carrying on of operations in unpretentious offices rather than in "Greek temples," and operation upon the basis of smaller reserves. Superior managerial personnel is available to branch systems, it is claimed, because they are able to attract the most expert services by the payment of handsome salaries—a fact to be emphasized because poor management has been generally recognized as the most important cause of weakness in our unit banking system. Proponents of branch banking further argue that better services can be had in branch systems than in unit systems in so far as branches located in the smaller communities, though they may have only a minimum of facilities at hand, can arrange through the head office for services of any description. Finally, they hold that the rarity of failures among foreign branch banking organizations, as contrasted with the thousands of suspensions of unit banks in the United States, clearly proves the pre-eminent safety of branch systems.

Those who oppose the extension of branch banking in the United States hold that branch organizations are likely to ignore the special needs of individuals and communities, for the whole banking structure becomes impersonal, and branch managers, though they may want to cooperate with local businessmen, are handicapped because they must strictly observe the regulations adopted at the head office. They claim, further, that branch organizations are likely to drain funds from the smaller communities to the money centers because the national officers are likely to be more interested in lending huge sums to great national corporations than in granting thousands of small loans to small businessmen in numerous hamlets and villages. In regard to safety, the opponents of branch banking claim that we have now achieved a large measure of safety in unit banking through the introduction of nation-wide deposit insurance, the weeding out of unsound banks, and the closer integration of the thousands of banks which remain. Finally, and most importantly, the critics of branch banking claim that its extension would result in a most dangerous concentration of economic power in the hands of a few national officers of the branch organizations—a concentration similar to that which has taken place in so many of our industries because they, unlike banks, have been free to transcend state boundary lines, to absorb competitors, to acquire and establish subsidiaries, and in other ways to progress toward monopoly.

DEVELOPMENT OF BRANCH BANKING IN THE UNITED STATES

Early Development.—The extension of branch banking was not an important question in the United States until after the year 1909, when

California departed from precedent by permitting state-wide branch banking. Before the Civil War, as has been mentioned, a considerable development of branch banking took place, but political and economic conditions generally militated against the success of branch organizations. The two Banks of the United States were branch systems, but their charters were not renewed; and though several state branch systems were established, particularly in the South and West, most of them failed before or during the Civil War. The National Bank Acts of 1863 and 1864 made no provision for branch banking, although an amendment of 1865 authorized the Comptroller of the Currency to grant national charters to state banks already having branches. The regulations, however, were so restrictive that most of the state banks which reconstituted themselves as national institutions preferred to obtain separate charters for each branch. In the year 1900, only 87 commercial banks in the United States were operating branches, and they averaged only slightly more than one branch each, having a total of 119.⁶

California's action in relaxing branch banking restrictions was soon repeated in many other states,⁷ but no immediate change in federal regulations resulted. The Federal Reserve Act, although it permitted the organization of foreign branches by American banks, did not provide for an extension of domestic branch banking. The first concession of the federal government in the direction of domestic branch banking was embodied in an amendment to the banking laws adopted in 1918. This amendment permitted state banks to obtain national charters or to join the Federal Reserve System while retaining any branches already in operation, but such banks could not thereafter establish new branches; likewise, in absorbing state banks national banks could continue in operation any branches already founded by the state institutions.

A further breach in the restrictions of federal law was made by a ruling of the Comptroller of the Currency in 1922. The ruling, which had no specific legislative sanction, permitted national banks to open additional offices—"tellers' windows"—in their home cities, provided that such action was not explicitly forbidden by state law. Additional offices were merely to receive and pay deposits and to accept applications for loans.

McFadden Act of 1927.—Doubts as to whether the Comptroller of the Currency had acted within his powers in the ruling of 1922 opened for further consideration the entire question of branch operation by national banks and state member banks of the Federal Reserve System, and Congress formally took up the matter in the McFadden Act of February 25, 1927. Although this legislation was hailed in some quarters as a liberalization of federal law, it was, in truth, quite restrictive in character. It did permit national banks to engage in city-wide branch banking—but city-wide bank-

⁶ Board of Governors of the Federal Reserve System, *Banking and Monetary Statistics* (Washington, 1943), p. 297.

⁷ By 1915, state commercial banks had in operation 759 branches, as compared with a total of 26 branches of national banks.—*Ibid.*

ing is scarcely branch banking in the sense in which it has been discussed in this chapter. In cities of 25,000 to 50,000 population, one branch might be established; in those of 50,000 to 100,000 population, two branches; and in cities of more than 100,000 population, any number approved by the Comptroller of the Currency. City branches could be opened by national banks only in those states where state-chartered banks had the same privilege.

The legislation of 1927 also permitted state banks, when converting into national banks, and national banks when merging with one another, to retain all branches in operation as of the date of the approval of the act. State banks could join the Federal Reserve System and retain all branches which were in operation on February 25, 1927; but all branches established after that date outside their home-office cities would have to be relinquished by state banks desiring to join; and state banks which were already members would be required to forfeit their membership were they to establish new branches outside their home cities. The McFadden Act thus attempted to restrict the branch banking operations of state banks as well as those of national banks, although state law might be more generous in the matter. Finally, the legislation permitted national banks to retain branches already in "lawful operation," as well as single branches operated with or without official sanction for twenty-five years or more.

Present Federal Regulations.—Though many of the states continued after 1927 to relax their laws relating to branch banking, nothing further was done to amend the federal laws until after the banking crisis. The collapse of thousands of unit banks once again suggested comparison of the safety records of unit and branch banking systems, and Congress, in the Banking Act of 1933, finally created the framework for a more extensive development of branch banking. As the provisions of the legislation of 1933, with amendments of the Banking Act of 1935, are those which at present govern the establishment of branches by national and state member banks, they may well be examined in some detail.

1) In the first place, Congress "passed the buck" to the states by permitting them to decide whether or not branch banking should be encouraged. If a state allows its chartered banks to establish branches throughout its jurisdiction, then a national bank operating in that state may establish branches on a state-wide basis; if a state permits only city-wide branch banking, then national banks are similarly restricted; and if a state limits branch banking to some other unit of territory, as the county, then national banks are similarly limited.

2) In establishing branches, national banks and state member banks must satisfy certain capital requirements—the law stipulates a *minimum* capital as well as the *total* capital required in specific instances. The general rule is that a bank must have \$500,000 of capital to establish any branches whatsoever outside its head-office city; but in a state of less than 1,000,000 population, in which there is no city of more than 100,000 population, the

minimum is cut to \$250,000; and in a state of less than 500,000 population, having no city of more than 50,000 population, the minimum is only \$100,000. In total, a national or state member bank and its out-of-town branches must have capital equal to what would be required if each were an independent unit bank. To illustrate, the capital requirement for a national bank having a head office and branches in certain cities of the state of California would be calculated as follows:

<i>Location</i>	<i>Population (1940 census)</i>	<i>Capital required for a unit bank</i>
Head office:		
San Diego.....	203,341	\$200,000
Branches:		
Long Beach.....	164,271	200,000
Glendale.....	82,582	200,000
San Bernardino.....	43,646	100,000
Needles.....	3,624	50,000
Paso Robles.....	3,045	50,000
Total capital required.....		\$800,000

If the bank with its head office in San Diego operated only the San Bernardino and Needles branches, the capital required would be, not \$350,000, but \$500,000, since the minimum requirement would apply.

3) The Banking Act of 1935 requires the approval of the Board of Governors of the Federal Reserve System for the establishment of new branches by state member banks outside their home cities, for the retention by newly admitted state member banks of branches established outside their home cities after February 25, 1927, and for changes in the location of branches of state member banks. Those state banks which are not members of the Federal Reserve System but which are insured must obtain the consent of the Federal Deposit Insurance Corporation to change the location of branches and to open new ones.

4) Finally, national banks are permitted to open seasonal agencies in resort communities for the receipt and payment of deposits without regard to the capital requirements applying to branch operations. The authority may be exercised, however, only if the branches are located in the head-office counties of the national banks concerned, if the state government specifically permits county-wide branch banking, and if the resort communities are not served by other banks.

Despite the liberalization of the federal regulations, one must remember that in no instance does American law permit nation-wide branch banking organizations similar to those which operate in Canada, England, France, and other countries. Since state governments decide the extent to which branch banking may be expanded, branch organizations are necessarily limited by state boundary lines.

State Regulation of Branch Banking.—All but four of the states have enacted legislation to govern the establishment of branches within their

respective jurisdictions. Eighteen states and the District of Columbia, as listed in Table 7, permit state-wide branch banking, while nine prohibit all forms of branch banking. All other states, with the exception of those which have failed to adopt legislation, permit banks to carry on their operations at two or more locations within restricted territories; but some of them provide for "offices" having limited functions rather than for full-power branches.

TABLE 7

SUMMARY OF STATE BRANCH-BANKING LEGISLATION, AUGUST 15, 1939

Permitting state-wide branch banking:

Arizona	Maryland	South Carolina
California	Michigan	South Dakota
Connecticut	Nevada	Utah
District of Columbia	North Carolina	Vermont
Idaho	Oregon	Virginia
Louisiana	Rhode Island	Washington
Maine		

Permitting branch banking in head-office and contiguous counties:

Montana ^a	New York ^a	Pennsylvania
----------------------	-----------------------	--------------

Permitting "offices" ^b in head-office and contiguous counties:

Arkansas	Mississippi ^a	North Dakota
Iowa	New Mexico	Wisconsin ^a

Permitting branch banking throughout head-office counties:

Alabama	Massachusetts	Tennessee
Indiana	Ohio	

Permitting branch banking in head-office cities:

Delaware	Georgia	New Jersey ^a
----------	---------	-------------------------

Prohibiting branch banking:

Colorado	Kansas	Nebraska
Florida	Minnesota	Texas
Illinois	Missouri	West Virginia

Having no branch banking legislation:

Kentucky ^a	Oklahoma	Wyoming
New Hampshire		

^a Montana permits branch banking in head-office and contiguous counties only when two or more banks so located have been consolidated; New York permits branch banking within designated "districts" consisting of three to fifteen counties; Mississippi also permits offices within a 100 mile radius of the head office; Wisconsin also permits offices within a 25-mile radius of the head office; New Jersey permits branch banking in the head-office county if two or more banks are consolidated; and Kentucky, on the basis of court decisions, permits banks to establish additional offices.

^b "Offices" differ from branches in that they are permitted only to receive deposits, to cash checks, and to perform other routine clerical operations.

Source: Derived from *Federal Reserve Bulletin*, October, 1939, pp. 851-870.

In most states, the laws stipulate that branches and offices may be established only in those communities which are not already served by banks; and several states require the closing of offices in the event that independent banks are opened in the communities where the offices have been in operation. Other regulations commonly found in state laws are

concerned with the capital which banks must have to establish branches, the additional capital required for each branch, the total number of branches which may be established by any one bank, and the population of the communities in which branches may be opened.

EXTENT OF BRANCH BANKING

The status of branch banking in the United States at the present time is summarized in Table 8. An analysis of the data presented there discloses

TABLE 8
BRANCHES OF COMMERCIAL BANKS IN THE UNITED STATES,
DECEMBER 31, 1945^a

	Totals	National banks	State member banks	State nonmember insured banks	State nonmember noninsured banks
Number of banks.....	14,011	5,017	1,864	6,416	714
Number of banks having branches.....	1,122	309	201	578	34
Number of branches.....	3,947	1,811	1,098	981	57
Leading branch-banking states:					
California.....	891	728	126	36	1
New York.....	671	188	426	54	3
Michigan.....	179	64	83	23	9
Ohio.....	175	41	112	22	—
Iowa.....	156	—	—	150	6
North Carolina.....	150	10	10	128	2
Wisconsin.....	146	15	7	123	1

^a A branch is defined as "any branch bank, branch office, branch agency, additional office, or any branch place of business . . . at which deposits are received, or checks paid, or money [is] lent."

Location of branches (including 143 branches of mutual savings banks):

In head-office cities.....	1,728
Outside head-office cities:	
In same counties.....	927
In contiguous counties.....	508
In noncontiguous counties.....	686
At military reservations.....	241

Source: *Federal Reserve Bulletin*, June, 1946, pp. 672-673.

several interesting facts. (1) On December 31, 1945, only 8 per cent of American commercial banks were operating branches, and these averaged only 3.5 branches per bank. (2) Although national banks comprise only 28 per cent of the total number of banks which maintain branches, they operate 46 per cent of the total number of branches. (3) A pronounced concentration of branch banking in a few states is apparent. Thus California and New York alone have 40 per cent of all branches in the United States; and these two states with Michigan and Ohio have approximately half of

the branches in operation. Generally speaking, branch banking is more prevalent on the Atlantic and Pacific coasts and in the region of the Great Lakes than elsewhere. (4) A noteworthy feature of branch banking in the United States is the concentration of branches in the home cities of the parent banks and in contiguous regions. On December 31, 1945, 45 per cent of all branches were located in head-office cities (leaving out of consideration offices maintained at military reservations, but including, in this instance, 143 branches of mutual savings banks), and only 18 per cent were located in counties not contiguous to those in which the parent banks were operating.

FOREIGN BRANCHES

American banks have not favored the establishment of numerous foreign branches. Before the First World War, the international trade financing of American firms was largely taken care of by British banks and their world-wide correspondents and branches. Even before the war, however, a small number of American banks had organized a few branches, particularly in Europe. The early branches were all established by state-chartered institutions, as the national banking laws until 1913 did not permit national banks to open foreign branches.

The Federal Reserve Act of 1913 authorized national banks having capital and surplus of \$1,000,000 or more to establish foreign branches; and by an amendment of September 7, 1916, such national banks were permitted to establish subsidiary banking corporations for the sole purpose of carrying on foreign banking. A national bank may invest an amount not in excess of 10 per cent of its capital and surplus in the stock of its foreign banking subsidiary or subsidiaries. The operations of a subsidiary corporation must be restricted according to rules laid down by the Board of Governors of the Federal Reserve System. When a national bank operates foreign branches directly, the books of parent and branches must be kept separate, both parent and branches must make reports of condition to the Comptroller of the Currency, and both must submit to examination by the Board of Governors. The operation of foreign branches by state member banks is subject to the same regulations that apply to national banks.

According to a recent report of the Board of Governors,⁸ four national banks had 66 foreign branches and three state member banks had 6 foreign branches in operation at the end of the year 1945. Twelve of the branches were located in territories and possessions of the United States (4 in the Canal Zone, 1 in the Philippines, and 7 in Puerto Rico), 42 in Latin America, 6 in the Far East, and 12 in Europe. The Latin-American branches were largely concentrated in Cuba and Argentina, the former having 16 and the latter 10; however, eight other Latin-American countries were being served by one or more branches of American banks.

⁸ *Annual Report*, 1945, p. 45.

Group and Chain Banking

The gathering together of numerous banking offices in unified organizations did not wait, in many states, upon the enactment of permissive legislation. Though it might be impossible to establish branch systems without the sanction of law, unification could be achieved by the formation of "groups" and "chains." A group is a system wherein a number of banks are subject through stock ownership to the control of a single holding company; a chain comprises a number of banks held together by a less formal means. A chain may consist of several banks controlled by the members of a single family, or by a clique closely associated in their business dealings. Suppose, for example, that the owners of Bank A desire to gain control of Banks B and C, but they do not want to form a holding company, nor can Bank A, because of legal limitations, directly own stock in Banks B and C. The integration could be accomplished by having the directors of Bank A buy a majority of the outstanding stock of Banks B and C.

From the point of view of the controlling interests, unification by means of groups and chains is superior in certain respects to unification through the establishment of branches. Through the operations of a holding company, for example, control may be exercised over banks located in different states; whereas branch banking, as we have seen, is limited by state boundary lines. Again, a holding company may integrate in a single system national banks, state banks which are members of the Federal Reserve System, and state banks which are not members. It is also possible for the holding company to control corporations in fields of finance other than commercial banking, although, since 1934, the inclusion of investment banking subsidiaries in group systems has been prohibited by law.

EXTENT OF GROUP AND CHAIN BANKING

Although a few groups and chains were in operation before the year 1901, the development of such organizations has been almost exclusively a phenomenon of the twentieth century. Group banking had its most rapid growth in the decade of the 1920's, most of the outstanding groups having been organized in the closing years of that period. At the end of the year 1931, 97 groups comprising 978 banks and 1,219 branches were in operation in the United States;⁹ by the end of the year 1943, however, the number of groups had shrunk to 31, comprising 383 banks and 875 branches. The decline in the number of groups and in the number of banking offices controlled by groups resulted from the liberalization of branch banking laws, suspensions, mergers, and the sale of controlling interests in banking subsidiaries; nevertheless, group banking has by no means become insignificant, for group banks and their branches held total deposits of \$12,407,284,000

⁹ C. E. Cagle in *Banking Studies* (Washington: Board of Governors of the Federal Reserve System, 1941), pp. 134, 136.

on December 31, 1943.¹⁰ Chain banking reached the zenith of its popularity about the year 1920, and it has been of steadily declining importance since then. On December 31, 1943, there were in operation 100 chain banking systems comprising 454 banks and 56 branches—most of them institutions of small resources located in communities of less than 5,000 population. The West North Central states account for most of the chain systems, and only a sprinkling of chain banks is found elsewhere. None operate in eighteen states and the District of Columbia. The relative unimportance of chain banking is indicated by the fact that, on December 31, 1943, the combined deposits of all the chain banks of the country amounted to only \$2,859,059,000.¹¹

REGULATION

The establishment of holding companies to exercise simultaneous control of several independently chartered subsidiary banks offered opportunities for manipulative practices, and abuses were not slow in making their appearance. Groups were sometimes organized, not so much to further a desirable integration of banking as to make profits for the promoters. Holding companies could deliberately strengthen one bank at the expense of other banks in their groups. For example, a holding company might strengthen the asset position and increase the income of a subsidiary in which it had virtually a 100 per cent stock ownership by shifting the better assets from a subsidiary in which it controlled, say, only 51 per cent of the stock. In those instances where the holding companies owned the controlling interest in investment banking "affiliates," subsidiary commercial banks could be ordered to buy securities offered for sale by the investment subsidiaries even though they might be of poor quality.

As these and other abuses of group banking became more widespread, Congress and some of the state legislatures took steps to curb them. A few of the legislatures also adopted measures to restrict the operations of chain banking systems.

State Regulation of Group Banking.—Almost all states limit the acquisition by commercial banks of the stocks of other banks. In 33 states and the District of Columbia, for example, it is illegal for a commercial bank to purchase an interest of 50 per cent or more in the stock of another bank.¹² But much less progress has been made in regulating the operations of non-banking corporations engaged in holding the stocks of banking subsidiaries. Only one state—Mississippi—expressly forbids group banking; but eleven other states, including Pennsylvania, New Jersey, Indiana, Wisconsin, and Oregon, seek to discourage group banking by regulating the ownership of bank stocks by corporations, by limiting the transactions between holding

¹⁰ *Federal Reserve Bulletin*, June, 1944, p. 614.

¹¹ *Federal Reserve Bulletin*, June, 1944, p. 615.

¹² Cagle, *op. cit.*, p. 131.

companies and their banking subsidiaries, by requiring the examination of holding companies, and by imposing other restrictions of a similar character.¹³

Federal Regulation of Group Banking.—To the extent that holding companies control banks located in several states, and to the extent that they control national as well as state banks, the problem of regulation is one that involves the federal government rather than the state governments. The problem was recognized by the federal reserve authorities and by members of Congress for some years before legislation was adopted to cope with it. Finally, however, provisions designed to bring many group systems within the federal jurisdiction were incorporated in the Banking Act of 1933. This legislation, as amended by the Banking Act of 1935, requires holding companies to obtain from the Board of Governors a permit before they may vote the stock of any banking subsidiary which is a member of the Federal Reserve System. Those holding companies which control only nonmember state banks, however, are still free of federal supervision.

To obtain a voting permit, a holding company must agree to the following stipulations: that it will open its books and the books of all its subsidiaries to examination by the federal reserve authorities, whether or not all the subsidiaries are members of the Federal Reserve System; that it will file and publish reports of its condition, if called for, as if it were itself a member of the Federal Reserve System; that it will avoid all connections, direct or indirect, with any concern engaged in underwriting and selling securities, except government issues and a few other special types; that it will build up a reserve of marketable assets equal to a stipulated proportion of the par value of all bank stocks which it owns; and that it will limit its payment of dividends to actual net earnings.

If a holding company fails to apply for a voting permit, if it fails to qualify after having applied, or if its permit is revoked by the Board of Governors, its national bank subsidiaries may be placed in liquidation, and its subsidiaries which are state member banks may be required to forfeit their membership in the Federal Reserve System.

Regulation of Chain Banking.—Only the state of Mississippi outlaws chain banking, and only five other states have enacted legislation to regulate the operations of chain systems. The remaining states and the federal government have no legislation which directly pertains to chain banking.¹⁴

¹³ *Ibid.*

¹⁴ See *Banking Studies*, pp. 125-130, 431-432.

Chapter 10

GOVERNMENT SUPERVISION OF BANKING

Scope of Government Supervision

From the time that a commercial bank is organized until it is liquidated—if that event takes place, whether voluntarily or involuntarily—it is subject to a multitude of rules and regulations imposed by governmental authorities. Such rules and regulations are promulgated by Congress and by the state legislatures, as well as by administrative agencies to which supervisory authority has been delegated by the legislative bodies.

Permission of administrative authorities must be obtained for the launching of a new banking institution, for a change in a bank's name, for alterations in its capitalization, as in the issue of preferred stock, and for the establishment and removal of branches. If a bank desires to switch its allegiance from a state to the federal government, or from the federal government to a state government, proper authorization must be obtained from administrative authorities. The reserves which banks must hold to safeguard their deposits are prescribed by legislative enactments or by administrative rulings. Interest charged by banks on their loans and interest payable by them on their deposits are both limited by regulation. In granting loans of all kinds and in buying investment securities, commercial bankers must give proper attention to the restrictions of law and the interpretive rulings of supervisory officials. Every commercial banker must be willing to open his books to the scrutiny of examiners appointed by the administrative agencies, as well as to make reports of condition when called upon to do so. In a word, almost every phase of commercial bank activity comes within the purview of legislative enactment and administrative regulation.

NEED OF SUPERVISION

One probably ought not to look fearfully upon the extensive body of banking regulations or to fear that its continual growth presages the rapid "socialization" of banking. The powerful position occupied by the commercial banks and the special privileges they possess make supervision and regulation necessary in the interest of the general welfare. The American people have long accepted the proposition that it is proper and desirable for

governments to exercise close supervision over the operations of railroads, electric power and gas companies, water companies, and other public utilities. It is said that these corporations are "natural monopolies," that competition is harmful, and that in lieu of competition the government must protect the welfare of the public. While commercial banking is not a natural monopoly in the same sense, the capacity of the commercial banks to influence the economic development of the country makes them at least as important as public utilities as agencies for good or ill. Conservative banking policies may stifle the economic life of a community and impede the organization of sound enterprises; and, on the other hand, loose, reckless policies may bring about the economic collapse of a community.

Aside from the fact that commercial banking impinges upon almost every phase of economic activity, an outstanding reason for regulation is that the commercial banks enjoy an important privilege denied to all other members of society. This privilege is the power of creating money. We have had occasion, in preceding chapters, to point out that bank demand deposits represent the most important kind of money in circulation in the United States and that deposit money may be created, so to speak, at the stroke of the banker's pen. If the legislatures see fit to permit their chartered banks to exercise the sovereign right of manufacturing money, it is not too much to ask that the banks submit to supervision and regulation. Governments have for long assumed the responsibility of placing special safeguards around the issue and use of money. When coins were the chief mediums of exchange, governments regulated their metallic content, their shape and size, their design, and so on; as paper money became more widely used, governments adopted measures to regulate its creation, its redemption, the maintenance of reserves, and similar matters; and now that bank demand deposits comprise the chief medium of exchange, it is not illogical for governments closely to control their creation and use.

SUPERVISORY AGENCIES

Many administrative agencies which have the power to supervise various groups of banks exist in the United States. The states have as administrative organs banking departments headed by responsible executives. In the federal framework, three agencies, the officials of the Federal Reserve System, the Federal Deposit Insurance Corporation, and the Comptroller of the Currency, have major powers and responsibilities respecting bank supervision; other agencies, such as the Treasury and the Reconstruction Finance Corporation, have minor authority; and still others, such as the Federal Home Loan Bank Administration and the Farm Credit Administration, have extensive supervisory functions in specialized banking fields.

With so many agencies in operation, conflicts of jurisdiction frequently develop, although it is a noteworthy fact that cooperative effort rather than competition has marked the policy of most agencies. The banks themselves

may at times be confused as to their responsibility to the various authorities to which they are subject. Thus national banks are primarily subject to the provisions of federal law and to the regulations of the Comptroller of the Currency, but they must also take cognizance of certain rulings of the Board of Governors and of the FDIC; and state banks which are primarily guided by state law and regulations are limited in their operations by rulings of the Board of Governors and of the FDIC, if they are members of the Federal Reserve System, and of the FDIC alone, if they are nonmember insured banks. The allocation of major powers among administrative agencies is summarized in Table 9.¹

TABLE 9

DISTRIBUTION OF SUPERVISORY POWERS AMONG BANKING AUTHORITIES^a

Powers	Exercised with respect to			
	National banks	State member banks	State nonmember insured banks	State nonmember noninsured banks
Issuance of charters	CC	State ^b	State	State
Approval of changes in name, changes in capitalization, issue and retirement of capital notes and debentures, etc.	CC	State FR	State FDIC	State
Authority to establish, change location of, and discontinue branches	CC	State FR	State FDIC	State
Admission to the Federal Reserve System	CC	FR		
Admission to deposit insurance	CC	FR	FDIC	
Authority to exercise trust powers	FR	State	State	State
Examinations	CC (FR) (FDIC)	State FR (FDIC)	State FDIC	State
Reports of condition	CC FR FDIC	State FR FDIC	State FDIC	State
Determination of reserve requirements	FR	State FR	State	State
Limitation of interest payments on deposits	FR	State FR	State FDIC	State
Receiver in case of insolvency	FDIC	State or FDIC	State or FDIC	State

^a Explanation of abbreviations used: "CC" for Comptroller of the Currency; "FR" for the Board of Governors and other officials of the Federal Reserve System; "FDIC" for Federal Deposit Insurance Corporation; and "State" for state supervisory authorities. Parentheses indicate that powers are not commonly exercised.

¹ For an excellent commentary upon the confused and overlapping jurisdiction of the supervisory authorities, see *Annual Report of the Board of Governors of the Federal Reserve System*, 1938, pp. 11-16.

Comptroller of the Currency.—For many decades, the most important official of the federal government having supervisory authority with respect to commercial banking was the Comptroller of the Currency, but in recent years the position of his office has been partially eclipsed by newer administrative agencies.² The National Bank Act of 1863 established the Bureau of the Comptroller of the Currency as a division of the Treasury Department, where it has remained to the present time. The Comptroller is appointed by the President with the advice and consent of the Senate for a five-year term. His annual salary is \$15,000.

As the supervisor of the national banking system, the Comptroller has much authority with respect to the organization, operation, and liquidation of those commercial banks which operate under federal charters. He grants charters to newly organized national banks, approves the conversion of state banks into national institutions, and passes upon the consolidation of two or more national banks as well as the consolidation of national and state banks. He approves changes in the names of national banks, changes in their capitalization, and the issuance of capital notes and debentures. His approval must be obtained for the opening, change of location, and closing of branches of national banks. The Comptroller is charged with the duty of examining national banks and of requiring them to submit reports of their condition. He issues regulations interpreting the laws which govern the loan and investment operations of national banks; as a matter of fact, his investment regulations apply also to those state banks which are members of the Federal Reserve System. He appoints receivers for national banks which he finds to be insolvent;³ he may appoint conservators for national banks in unsound condition pending their reorganization or liquidation; and he supervises the liquidation of national banks which voluntarily cease operations. Finally, he makes an annual report to Congress relative to the conditions of the national banking system.

Other powers of the Comptroller are not directly concerned with the national banks. He has supervisory authority with respect to all commercial banks and trust companies which operate in the District of Columbia, as well as those savings and loan associations and credit unions of the District which are not chartered under the Federal Home Loan Bank Act and the Federal Credit Union Act respectively. He is ex officio one of the three directors of the Federal Deposit Insurance Corporation. Finally, he supervises the printing and distribution of federal reserve notes, safeguards the dies, and retains custody of printed notes until they are shipped to the federal reserve banks.

² By the authorities of the Federal Reserve System and by the Federal Deposit Insurance Corporation, chiefly the former. Some of the functions of the federal reserve authorities and of the FDIC are mentioned elsewhere in this chapter, but their work is discussed at greater length in other chapters—that of the FDIC in the following chapter, and that of the Federal Reserve System principally in Chapters 21, 22, and 27.

³ This power, however, is strictly limited, since the FDIC must be named as receiver of insolvent national banks.

State Authorities.—The laws of each of the forty-eight states designate an official who is responsible for the supervision of its chartered banks. With very few exceptions, the official—who is known variously as a “commissioner,” “secretary,” “superintendent,” or “examiner”—is concerned exclusively with banking matters, and he is thus able to devote full time to his supervisory duties.

Little need be said regarding the powers and duties of state authorities, since, in general, they closely resemble those of the Comptroller of the Currency with respect to national banks. The state supervisors approve or reject applications for charters, pass upon the consolidation of banks, grant permission for the opening and closing of branches, approve changes in capitalization, make examinations, require reports, supervise the liquidation of insolvent banks, and report upon banking conditions to the legislatures.

Bank Examinations and Reports

It would be pointless for legislative bodies to adopt comprehensive codes to govern the business of commercial banking and to empower administrative agencies to issue additional rulings if means were not available to assure the observance of all laws and regulations. “Direct supervision” is necessary. “Direct supervision” refers to the authority of the supervisory agencies to send their examiners to the individual banks to observe their operations, and to require them from time to time to submit reports of their condition. Every agency set up for the supervision of banking receives the power to examine the banks subject to its jurisdiction as well as to require them to submit reports.

It is sometimes said, indeed, that American authorities make a fetish of bank examinations—it is claimed that they place undue emphasis upon the mere routine of examination instead of attacking fundamental weaknesses in the banking system. However that may be, the average bank in the United States may expect the unannounced visits of bank examiners at least once a year, and calls for reports of condition at least two or three times a year.

PURPOSES OF EXAMINATIONS

Bank examinations are made not only to determine whether or not banks are obeying the law, but also to discover whether or not they are in sound condition. The responsibility assumed by governments for the safe operation of banks requires assurance that they conserve their assets for the protection of the depositors. The examiners want to discover, in the first place, whether the banks have good title to the assets they claim to own; and, second, whether the assets are of an acceptable character and are reasonably evaluated upon the books. Because liabilities are claims against the assets, the examiners must also ascertain as far as is reasonably possible

whether all of them have been entered upon the books and whether they are accurately stated.

Although many people are of the opinion that bank examinations are made chiefly for the purpose of uncovering fraud and embezzlement on the part of bank officers and employees, this is an erroneous notion. It is unfortunately true that fraud and embezzlement are by no means unknown in banking, but, considering the large number of banks and bank employees, the incidence of these crimes is really too rare to justify the work and expense of numerous examinations. Examiners, of course, are constantly on the lookout for evidence of criminal actions, but their discovery is not the primary reason for making examinations.

Not only should bank examinations uncover illegal and dishonest practices, if they exist, but "unsafe and unsound" practices as well. Unsafe and unsound practices may, indeed, endanger a bank's solvency to a greater degree than small defalcations. The recognition of this fact led Congress in 1933 to give to the Board of Governors of the Federal Reserve System the authority to remove any officer or director of a member bank who fails to discontinue such practices after having been warned to do so. Because of the vagueness of the term, the nature of an unsafe and unsound practice is not easily defined, and the interpretation necessarily differs from bank to bank, from community to community, and from time to time. In general, however, the classification includes such practices as the operation of banks with inadequate capital or with seriously impaired capital; the failure to write off losses; the observance of lax credit, collection, and investment policies; the payment of excessive salaries; and the continued carrying of excessive loans to single interests.⁴

TYPES OF EXAMINATIONS

Examinations of the Comptroller of the Currency.—The Comptroller of the Currency is required by law to examine each national bank at least twice a year, and he is empowered to order additional examinations whenever he so chooses. The examination work of the Comptroller's office is supervised by a chief national bank examiner whose headquarters are in Washington, and by twelve assistant chiefs, each of whom with a corps of examiners is assigned to one of the twelve federal reserve districts. The examiners are appointed by the Comptroller, with the approval of the Secretary of the Treasury, from lists submitted by the Civil Service Commission of successful candidates in comprehensive examinations. Since the examiners have civil service status, which assures employment till retirement presupposing "good behavior," they are expected to discharge their duties without fear or favor.

Examinations of the Federal Reserve Banks.—Although the Board of Governors of the Federal Reserve System is authorized by law to examine

⁴ See *Annual Report of the Federal Deposit Insurance Corporation*, 1944, pp. 22-23.

member banks, the routine work of examination is delegated to the regional federal reserve banks. Each reserve bank has an examination department from which examiners are sent, ordinarily once a year, to each state member bank of the district. The examination department was formerly under the jurisdiction of the federal reserve agent, a direct appointee of the Board of Governors, but now a vice-president oversees the work of examination.

As national banks are of necessity members of the Federal Reserve System, they would normally be subject to examination both by the Comptroller of the Currency and by the federal reserve banks of their respective districts. National bank examiners, however, submit a copy of the report of the examination of each national bank to the examination department of the district reserve bank, and this usually suffices. A federal reserve bank may, nevertheless, order its examiners to obtain additional information from national banks, or, indeed, to conduct independent special examinations. The federal reserve banks may order special examinations at any time if they suspect that member banks are using credit obtained from the federal reserve banks for speculative purposes.

Usually, however, the examination department of each reserve bank is occupied only in examining the state member banks of the district. As these banks are also subject to examination by state banking authorities, the federal reserve banks have generally cooperated with the state authorities in simplifying the procedure. In some instances, state officials are willing to accept a copy of the federal reserve examination report without making an independent examination of their own; and in others, the federal reserve bank and the state banking department send their examiners into a state member bank at the same time and the examination is made jointly.

Examinations of the FDIC.—A third federal agency which has powers of examination is the Federal Deposit Insurance Corporation. The headquarters of the examination division of the FDIC are located in Washington, and field offices under supervisory examiners are maintained in districts whose boundaries approximately conform with those of the federal reserve districts. Examiners of the FDIC engage chiefly in examining state banks which are insured but which are not members of the Federal Reserve System. But the FDIC may also examine state member banks if it obtains the written permission of the Board of Governors, and national banks, with the written permission of the Comptroller of the Currency.

The insured banks directly under the jurisdiction of the FDIC are also, of course, subject to the supervision of state banking authorities, and again a desirable policy of cooperation has been established between federal and state agencies. Most examinations of the FDIC are made jointly with the examiners of state banking departments. The FDIC, as a matter of fact, has done notable work in enlisting the cooperation of other federal agencies as well as of state authorities in standardizing examination practices and procedures.

Examinations of Other Federal Agencies.—The Reconstruction Finance Corporation may examine the banks which come within its special jurisdiction. Its rights of supervision and examination extend only to those banks to which it makes capital contributions by the purchase of preferred stock or of capital notes and debentures. Examinations are usually made before requests for capital subscriptions are granted; and, from time to time, partial examinations are made to determine whether or not the banking institutions are fulfilling their contractual obligations to the RFC.

In other fields in which the federal government has created specialized banking facilities other examining authorities are active. In the domain of farm credit, for example, the federal land banks are authorized to scrutinize the affairs of national farm loan associations, and the production credit corporations may examine the books of the associations of farmers which are organized under their auspices; and in the field of urban real-estate finance, the federal home loan banks supervise and examine their "members," such as the federal savings and loan associations and the state building and loan associations.

Other Examinations.—Every state, in its banking legislation, provides for the examination of its chartered banks by the state supervisory official. In the less populous states, much of the work of examination is done by the official himself; in the more populous states, examination departments similar to those of the federal agencies carry on the work of direct supervision.

As if the examinations of government authorities were not sufficiently numerous, many banks submit voluntarily to additional examinations. Members of clearinghouse associations in the larger cities usually agree, upon joining the associations, to open their books to examiners employed by the clearinghouses. As a matter of fact, such examinations are generally of a superior quality and are productive of valuable advice respecting the improvement of banking practices. Because clearinghouse examiners deal only with a homogeneous group of banks whose problems are more or less identical in character, they become quite proficient in suggesting ways to improve operating policies.

The board of directors of a commercial bank, in fulfilling the obligations of their office, must provide for internal examination. A committee chosen from among the directors may perform this function directly, or a firm of public accountants may be hired to do the work. A thorough internal examination offers the board of directors an opportunity to reconsider the operating policies of the bank, as well as to adjudge the diligence with which the various officers discharge their duties. In addition, a special officer, such as an auditor, is usually assigned the duty of maintaining a continuous "internal check" upon the operations of all departments of the institution. The auditor is usually made responsible solely to the board of directors so that he may be independent in passing upon the work of the other executives of the bank.

MECHANICS OF BANK EXAMINATIONS

To avoid any serious interference with a bank's business operations, bank examiners usually begin their examination in the afternoon after the bank has closed its doors or in the morning before the doors are opened for business. They take possession of the bank's books and of all documents of title, whether owned by the bank or pledged by borrowers as collateral for outstanding loans. They seal the vault and the cash drawers in the tellers' cages as well as all cash items awaiting clearing. As quickly as possible, the examiners release the assets to the bank's employees after verification, so that necessary operations, such as the sending of cash items to the clearing house, to the federal reserve banks, or to correspondent banks, will not be too long delayed. It is not necessary immediately to analyze the assets, as they can be listed upon "working papers" for more leisurely analysis while the bank is carrying on its usual activities. The existence of assets not held at the bank itself—such as those held with correspondent banks—must be verified by direct communication.

When the routine work of establishing the existence of the assets which the bank claims to own or hold as pledged collateral has been completed, the examiners are able to proceed with the more important work of analysis. This involves a classification of the assets as to their quality, their appraisal with respect to proper valuation, and the assurance that all documents are in proper order. In analyzing the assets, the examiners are in a position to observe whether or not all laws and regulations have been observed, and to reach conclusions as to the competence of the management and the reasonableness of its policies.

The value of bank examinations depends chiefly upon the quality of the examiners' reports. Copies of reports are filed with the supervisory authorities and with the officers of the bank examined. The officers of a bank may voluntarily change whatever policies an examiner criticizes as faulty; and if a report discloses illegal or "unsafe and unsound" practices, the supervisory authorities have the information at hand upon which to base their orders to the bank to cease such practices.

BANK REPORTS

Additional direct supervision of commercial banks is exercised by requiring them to file from time to time reports of their condition. Such reports consist of a statement of the assets, liabilities, and capital accounts of the individual banks, together with supporting information. Reports of this kind are not usually filed periodically but only when a "call" for them has been issued by a supervisory agency which has jurisdiction. Federal practice requires at least three reports annually from national banks and from all state members of the Federal Reserve System, and two from all nonmember insured banks; most of the states also require two or more reports per year.

Additional calls may usually be made at the discretion of the supervisory officials.

Close cooperation among the supervisory agencies is observed in the matter of making calls for reports, and they are almost invariably issued simultaneously by all agencies. Thus a state bank which is a member of the Federal Reserve System ordinarily has only three reports to make in the course of a year—copies of each going to the state banking department, to the federal reserve bank of the district, and to the FDIC.

Other reports of a miscellaneous character are occasionally required. Among these are the following: (1) reports of earnings and dividends required semiannually by the Comptroller of the Currency and by the Board of Governors, and annually by the FDIC; (2) the periodical reports of deposits made to the reserve banks for legal reserve computations; (3) the semiannual certified statements of the deposits of insured banks required by the FDIC for insurance "premium" calculations; and (4) the annual lists of directors and stockholders required of national banks by the Comptroller of the Currency. In addition, approximately 400 member banks in 101 leading cities make voluntary weekly reports of condition to the federal reserve banks, and member and nonmember banks located in 334 centers make monthly reports of their charges or "debits" to individual deposit accounts. Both of these types of reports are valuable for statistical purposes, since changes in the reported data indicate the trend of banking developments.

Structural Reorganization of Commercial Banking

The foregoing survey of the work of bank administrative agencies in the United States clearly shows that there is much duplication of functions and operations. In numerous instances, jurisdictions overlap so that any one commercial bank may at the same time be subject to the regulations of as many as three or more agencies. Such a division of authority is patently a source of weakness in the banking system. It is desirable, therefore, to examine some of the means by which the commercial banking system might be better coordinated.

In the first place, few logical arguments can be offered to defend the existence in the United States of forty-nine separate and distinct banking systems, plus the superimposed Federal Reserve System and the deposit insurance system. In the early days of American economic development, when regions were more or less isolated from one another, separate banking systems in each state may have been justified—but no longer. Of all the industries which function in the United States, banking is one which is affected with a national, rather than with a local or sectional, interest. To think of banking in sectional terms is absurd in a day when the nation-wide clearance of checks is essential, when national monetary policies are considered necessary, and when the expansion of loans and investments in one

district is likely to affect all other districts. The American money market is national rather than regional in scope. Weaknesses in the banking system in one section of the country are soon reflected in other sections; and the collapse of many banks in one state will generally be followed by "runs" upon banks in other states.

PROPOSALS FOR STRUCTURAL SIMPLIFICATION

Single National System.—Those who advocate a thoroughgoing unification of the American banking system recommend the elimination of the forty-eight state banking systems. A unification of this character could be accomplished by the adoption of legislation by Congress requiring every commercial bank—every bank which receives deposits subject to repayment on demand upon the written orders of depositors—to operate under a charter issued by the federal government.

It is perhaps wishful thinking to expect the states voluntarily to give up their right to charter commercial banking institutions, and their opposition to a suggestion of this kind would probably prevent necessary legislation from passing Congress. However that may be, legislation requiring federal charters, if contested in the courts, would likely be declared constitutional.⁶ Since the federal government has the authority, under the Constitution, to coin money and to regulate its value, it is the federal government which permits commercial banks to create money when they establish demand deposits. In consideration of this grant of power to the commercial banks, the federal government might well require all of them to submit directly to its jurisdiction.

Mandatory Membership in the Federal Reserve System.—Assuming that a proposal to eliminate the forty-eight state commercial banking systems could not get by the "cloakrooms" and committees of Congress, we may turn our attention to a second possible means of unification, namely, that all commercial banks be required to accept membership in the Federal Reserve System. Such a plan would not avoid the chartering of banks by state governments, nor would it eliminate much of the duplicate work of state banking departments, but it would accomplish a large measure of unification. In view of the monetary powers of the federal government, the Supreme Court would likely uphold a membership requirement.

Should Congress disdain to force membership by direct mandate, the same result could be brought about by indirection, as by making membership a prerequisite of deposit insurance. As few banks would be willing to forgo the insurance of their deposit accounts, the great majority of them which are now nonmembers would be forced into the Federal Reserve System. As a matter of fact, a goal of this kind was anticipated by a provi-

⁶ A brief defending the constitutionality of the proposal to require all banks receiving demand deposits to operate under federal charters was prepared in 1933 by the general counsel of the Federal Reserve Board for submission to the Senate Banking and Currency Committee. See *Federal Reserve Bulletin*, March, 1933, pp. 166-186.

sion of the Banking Act of 1933 which made membership in the Federal Reserve System mandatory for all nonmember banks which wanted to remain insured with the FDIC after July 1, 1936. The Banking Act of 1935, however, changed this stipulation by requiring membership only for insured banks which might have deposits of \$1,000,000 or more in the year 1941 or in subsequent years. But this provision, in turn, was repealed in 1939.

Other Proposals.—Many other plans for unification could be outlined, but only a few need be mentioned here. (1) All state banks, though remaining under the jurisdiction of state banking departments and though continuing outside the Federal Reserve System, could be required to observe some or all of the federal banking laws. Thus the federal reserve authorities suggested in a special report to Congress of December 31, 1940, that all commercial banks be compelled to keep reserves equal to those required of member banks.⁶ (2) Somewhat more limited in scope would be the extension of some or most of the federal banking laws to state nonmember insured banks. At the present time, these banks are subject to only a few of the federal statutes. (3) Legislation could be enacted to permit national banks—so that they might be truly “national” in character—to transcend state boundary lines in the operation of branches. The expansion of national branch systems would probably result in the absorption of many state banks.

PROPOSALS FOR ADMINISTRATIVE SIMPLIFICATION

Simplification of State Supervision.—A reduction in the number and a coordination of the functions of the supervisory agencies could also be achieved in a variety of ways. The duties of the state banking departments in the supervision of commercial banks would be eliminated, of course, should all banks receiving demand deposits be required to operate under federal charters. The state banking departments themselves would not necessarily be closed, as they would still have the task of supervising other financial institutions, such as savings banks, small loan companies, and savings and loan associations. Looking at the matter from the point of view of “practical politics,” however, one must admit that the prospects of simplifying state bank administration are not promising.

Simplification of Federal Supervision.—Within the framework of the federal government, however, a very satisfactory job of simplification could be accomplished. Three administrative agencies now perform many identical tasks, although it is true that each has certain independent specialized functions. As is shown in Table 9, the Comptroller of the Currency examines national banks, passes upon changes in their capital structure, and approves the opening and closing of branches; the federal reserve authorities undertake similar work in connection with state banks which are members of the system; and the FDIC does similar work with respect to state banks which are insured but which are not members of the Federal Reserve

⁶ See *Federal Reserve Bulletin*, January, 1941, pp. 1-2.

System. The Board of Governors determines the interest which may be paid on savings and other time deposits by all national and state member banks, and the FDIC prescribes the interest payable by state nonmember insured banks. The Comptroller of the Currency promulgates regulations to limit the investment operations of national banks, but these regulations apply also to state member banks. And so it goes.

What can be done? Many students of finance believe that no useful purpose is served in continuing the office of the Comptroller of the Currency. Even the title of this officer of the Treasury Department is an anachronism, for his powers are inconsequential so far as "controlling the currency" is concerned. The supervision of currency issues was an important function in the old national banking system, but the Comptroller's jurisdiction with respect to the volume of money was undermined when the federal reserve notes were issued and was made virtually nonexistent with the retirement of the national-bank notes in 1935. The Comptroller's duties could be easily absorbed by the Board of Governors and other officials of the Federal Reserve System, and the transfer of jurisdiction could be completed with no disruption or confusion in customary bank operations.

Proposals have been advanced that all examination and other routine supervisory work be concentrated in the FDIC; but if a full measure of simplification is desired, it would appear to be more logical to transfer all functions of the FDIC to the Federal Reserve System. The administration of the insurance program could be undertaken without difficulty by the federal reserve authorities. The examination departments of the federal reserve banks could extend their jurisdiction to all state banks whether members of the system or merely insured. The board now passes upon admissions to the Federal Reserve System; it could as easily pass upon the acceptance of nonmember banks for insurance. Indeed, should all commercial banks be required to hold membership in the Federal Reserve System, it would be only logical to leave with the Board of Governors and the federal reserve banks their present powers and add those taken over from the Comptroller of the Currency and from the FDIC.

Chapter 11

FEDERAL DEPOSIT INSURANCE

State Programs of Deposit Insurance

When the insurance of deposits was adopted on a nation-wide basis according to the terms of the Banking Act of 1933, the step was by no means a new and untried experiment. Systems of deposit insurance had previously been introduced in several of the states, beginning with Oklahoma in 1908. Had the federal government been guided by the results of state insurance programs, however, no national insurance plan would have been adopted, for state experience was uniformly disillusioning.

OKLAHOMA AS PIONEER

In the original Oklahoma plan, all state banks, together with the national banks which wanted to participate, were to pay into a central fund an assessment amounting to 1 per cent of their average daily deposits. Extra assessments could be levied if the fund were insufficient to meet the deposit liabilities of failed banks. An amendment of 1909 provided for an annual assessment of .5 per cent, but extra assessments could still be levied. The insurance fund was to be accumulated by assessments until it should equal 5 per cent of the average daily deposits of all insured banks. Other amendments were adopted from time to time, but they failed to eliminate the weaknesses of the system. Never displaying much vigor, the Oklahoma insurance system could not survive the first postwar depression, and the plan was formally discontinued in 1923.

The Oklahoma plan was inaugurated under most unfavorable circumstances. The state was just being organized after its admission to the Union. Although many banks located in the state were in a weakened condition following the panic of 1907, no great care was exercised in examining them before admission to the insurance system. The economic welfare of the banks, as well as of other institutions and individuals, was largely bound up with a single industry—agriculture. The Comptroller of the Currency would not permit national banks located in the state—and they were among the strongest—to insure with the state agency; and many of the stronger state banks obtained national charters to escape the heavy assessments.

OTHER STATE PLANS

Other states followed the lead of Oklahoma and set up systems of deposit insurance, most of them of a similar character. In 1909, Kansas adopted a voluntary system which provided for an annual assessment of only .05 per cent of average daily deposits less capital stock and surplus. The insurance fund was to be kept at \$500,000; should it be depleted, as many as five additional assessments of .05 per cent could be made in any one year. Although banks were admitted only after a rigid examination, the general depression of agriculture in the 1920's caused the collapse of the system. Nebraska and Texas also adopted deposit insurance in 1909. The Nebraska system operated quite successfully until 1926, when it became insolvent; it was discontinued in 1930. Mississippi followed in 1914, South Dakota in 1915, and both North Dakota and Washington in 1917. All these plans broke down as a result of the agricultural depression of the 1920's.

The Dakotas were especially unfortunate with their insurance programs. Their plans called for the issuance of certificates of indebtedness to depositors of failed banks, when the balance in the insurance fund was insufficient to meet their claims. Because so many banks failed, however, the time arrived in both states when current assessments on the insured banks were barely sufficient to pay the interest on the outstanding certificates of indebtedness. The operating banks naturally opposed the continuation of a system which, instead of providing protection for themselves, devoted their assessment payments to meeting the liabilities of banks long since closed.

The Federal Deposit Insurance System

ADVOCACY OF A NATIONAL PLAN

While the states mentioned were experimenting with the insurance of bank deposits, agitation for the establishment of a national system of deposit insurance rapidly developed. As early as 1908, the platform of the Democratic party called for the adoption of a national system; and the Republicans, not to be outdone, also advocated national deposit insurance, although they had failed at their convention to include the proposal in their platform. The early drafts of the Federal Reserve Act included a plan for national deposit insurance, and, indeed, when the bill passed the Senate in 1913, the deposit insurance provisions were still intact. Before the bill was finally adopted by the House, however, these provisions had been deleted.

In 1917, sixteen years before the adoption of national deposit insurance, the Comptroller of the Currency advocated a plan of insuring deposits of national banks to the amount of \$5,000 for each account. To compensate for the increased safety of deposit accounts, the Comptroller suggested the adoption of regulations to limit interest payments on insured accounts. From that time on, numerous proposals respecting national deposit insurance were introduced in both houses of Congress; and in the Congressional

session of 1932, taking place in the midst of the banking collapse, no less than thirteen deposit guaranty plans were introduced in the House of Representatives, and three additional ones in the Senate.

SCOPE OF FEDERAL DEPOSIT INSURANCE

The establishment of national deposit insurance was one of the major features of the Banking Act of June 16, 1933. According to the original plan, deposits of less than \$10,000 were eventually to be insured in full; those from \$10,000 to \$50,000, to be insured to 75 per cent of their face amount; and those above \$50,000, to 50 per cent. To inaugurate the system, however, a plan in which individual accounts were insured in full only to the amount of \$2,500 was temporarily put into operation beginning on January 1, 1934. The temporary plan was to be in effect for only one year, but it was extended on two occasions while the coverage for each account was raised to \$5,000. For the original comprehensive plan the Banking Act of 1935 substituted permanent insurance of each account to the amount of \$5,000.

Insurance up to \$5,000 in total is provided for all the accounts which any individual or organization maintains at a single insured banking institution. If, for example, a person has a savings account of \$5,000 and a demand deposit account of \$5,000, both at the same insured institution, his total insurance is only \$5,000. If, however, the accounts are kept at separate insured institutions, each is insured to the full amount.

FEDERAL DEPOSIT INSURANCE CORPORATION AND THE INSURED BANKS

Management and Capitalization of the FDIC.—The Banking Act of 1933 created the Federal Deposit Insurance Corporation to administer the new system. The FDIC is managed by a board of three directors—the Comptroller of the Currency and two others who are appointed by the President with the advice and consent of the Senate for six-years terms. Not more than two of the directors may be of the same political party. Each of the appointed directors receives an annual salary of \$10,000, but the Comptroller of the Currency receives no additional compensation for his work with the FDIC. One of the directors other than the Comptroller is named chairman of the board.

The directors must have no connections with any banks as officers, directors, or stockholders during their term of office; and the appointive directors are not permitted to accept employment with banks within two years after leaving the FDIC unless they have served a full term.

The capital of the FDIC was supplied by subscriptions of the federal government and of the federal reserve banks. The Secretary of the Treasury was authorized to purchase \$150,000,000 of the capital stock to be held on behalf of the government; and each federal reserve bank was required to subscribe an amount equal to one half of its surplus as of January 1, 1933. The subscriptions of the federal reserve banks in total amounted to \$139,-

299,557. The stock has no par value, no voting power, and receives no dividends. It is of value, then, only if the FDIC is liquidated at some time in the future or if it becomes sufficiently wealthy to retire the stock.

To augment its capital funds, the FDIC may sell its obligations, including notes, drafts, and debentures, in an amount equal to three times its outstanding stock and three times the 1936 assessment collected from insured banks—a total borrowing capacity of approximately \$975,000,000. Up to the present time, however, the FDIC has not found it necessary to borrow.

Assessment of Insured Banks.—The FDIC garners a steady revenue from the “premiums” or assessments paid by all insured banks. The assessments, which are calculated on the basis of average daily deposit balances, amount to 1/12 of 1 per cent of such deposits annually—one half payable on January 15, and the remainder on July 15.

The assessments have been subject to severe criticism especially by the larger banks, because they are based upon *total* deposits,¹ regardless of the proportion safeguarded by insurance. Thus a bank which holds the deposit of a corporation of a million dollars must pay an assessment on the entire amount, although only \$5,000 of the account is insured. Banks which have many accounts much in excess of \$5,000 protest that they are required to contribute for the support of the weaker banks of the country—that is, that the insurance premium is not based upon the incidence of risk. It may be argued, on the other hand, that though the large banks do not benefit directly, they enjoy indirect benefits in so far as their position is enhanced by a stronger, safer banking system as a whole.

The FDIC is required by law to invest its surplus funds in securities issued or guaranteed as to principal and interest by the federal government, although it may temporarily deposit them in the Treasury or with the federal reserve banks.

As Table 10 shows, in the period from its organization to the end of the year 1945, the FDIC has been able to meet its insurance losses and its administrative expenses out of the earnings derived from its holdings of securities; and thus the assessments paid by insured banks have gone in full to build up its surplus account.

Insured Banks.—All national banks and all state banks which are members of the Federal Reserve System are required to insure their deposits with the FDIC. State banks which are not members of the Federal Reserve System may have their deposits insured if they are able to satisfy the requirements of admission established by law and applied by the FDIC. The classification of insurable state banks includes commercial banks, mutual savings banks, trust companies, industrial banks (such as the Morris Plan

¹ By legislation adopted in April, 1943, “war loan accounts” were exempted from the insurance assessment until six months after the conclusion of the Second World War. “War loan accounts” represented balances due the Treasury on account of the purchase of government securities by banks and the sale of such securities by banks to their customers on behalf of the Treasury.

banks), and other banks which are "engaged in the business of receiving deposits."

When the Banking Act of 1933 was passed, the intention of the federal authorities was to insure as many banks as possible in order quickly to overcome the apprehension regarding their safety occasioned by the banking collapse. Hence the FDIC observed a liberal policy in admitting nonmember state banks to the insurance system; and the Reconstruction Finance Corporation cooperated by buying the preferred stock and debenture bonds of

TABLE 10
INCOME AND EXPENSES OF THE FDIC, 1933-1945
(In millions of dollars)

Year	Income			Expenses			Net income to surplus
	Total	Assessments of insured banks	Investment income and profits ^a	Total	Insurance losses and expenses	Administrative expenses	
1933-1934 ^b	7.0	—	7.0	4.4	0.3	4.1	2.6
1935	20.7	11.5	9.2	5.5	2.8	2.7	15.2
1936	43.8	35.6	8.2	5.2	2.7	2.5	38.6
1937	48.1	38.8	9.3	6.5	3.8	2.7	41.6
1938	47.8	38.3	9.5	5.6	2.6	3.0	42.2
1939	51.2	40.7	10.5	13.8	10.4	3.4	37.4
1940	55.9	46.2	9.7	10.7	7.1	3.6	45.2
1941	62.0	51.4	10.6	4.5	0.8	3.7	57.5
1942	69.4	56.5	12.9	4.6	0.7	3.9	64.8
1943	86.7	70.0	16.7	4.7	0.4	4.3	82.0
1944	99.5	80.9	18.6	3.9	0.1	3.8	95.6
1945	121.2	93.7	27.5	4.0	0.1	3.9	117.2

^a Including assessments and fees collected from federal credit unions.

^b From date of organization, September 11, 1933, to December 31, 1934.

Source: *Annual Report of the Federal Deposit Insurance Corporation*, 1945, p. 32.

many weak banking institutions so that they could qualify for insurance. The expansion of the insurance system is indicated by the data presented in Table 11.

When nonmember banks seek insurance, the FDIC considers their financial history, the scope of their corporate powers, the adequacy of their capital, their services to the communities in which they are located, the character of their management, and their prospects for future earning power and solvency.

In spite of the relative liberality of the FDIC's standards, the applications of 132 banks for deposit insurance were rejected because of unsatisfactory conditions in the period from August 23, 1935, to December 31, 1945.²

² Thirty nine additional applications were approved but the approval was later rescinded. See *Annual Report*, 1945, p. 23.

A few banks have failed to join because their officers look upon deposit insurance as an unwarranted interference of the federal government in "private business"; and others, including many of the mutual savings banks, have rejected federal deposit insurance because they feel that they do not need it or that, in consideration of the slight risk of failure involved, it is too expensive.³

Only a few of the federal laws and regulations which govern the operations of national banks and of the state banks which are members of the

TABLE 11

INSURANCE COVERAGE OF ALL INSURED COMMERCIAL BANKS, SPECIAL CALL DATES, 1934-1945

	Oct. 1, 1934	May 13, 1936	Sept. 21, 1938	Sept. 24, 1941	Oct. 10, 1945
Number of banks.....	14,060	14,085	13,705	13,434	13,289
Accounts (in thousands):					
Total number.....	49,751	57,398	61,392	66,918	81,655
Number of \$5,000 or less.....	49,021	56,476	60,399	65,668	78,773
Per cent of \$5,000 or less.....	98.5	98.4	98.4	98.1	96.5
Deposits (in millions):					
Total amount.....	\$35,988	\$45,188	\$48,220	\$67,778	\$130,477
Amount insured.....	\$15,654	\$19,578	\$21,705	\$26,043	\$ 56,514
Per cent insured.....	43	43	45	38	43

Source: Federal Deposit Insurance Corporation.

Federal Reserve System are made applicable to those state banks which come under federal jurisdiction solely for the purpose of participating in the deposit insurance systems. An insured nonmember bank is forbidden to pay interest on demand deposits, and it must limit the interest it pays on savings and other time deposits according to the regulations of the FDIC; it must obtain the approval of the FDIC to establish or change the location of branches; it must have the FDIC's consent before it may merge or consolidate with a noninsured institution; it must make no loans and give no gifts to bank examiners; and it must not pay dividends to its stockholders if it is delinquent in the payment of its insurance assessment. So far as the regulation of loans, investments, and other banking matters is concerned, the insured nonmember bank is subject to the provisions of state rather than of federal laws.

Suspension of Insurance.—An insured bank may voluntarily sever its relations with the FDIC by giving notice of ninety days, and the FDIC, in turn, may expel a bank from the insurance system for illegal and "unsafe and unsound" practices after a notice of thirty days and an opportunity for

³ On December 31, 1945, 714 commercial banks in the United States were uninsured. These banks had total deposits of \$2,452,000,000, equivalent to only 1.6 per cent of the deposits of all commercial banks.—*Federal Reserve Bulletin*, September, 1946, p. 1035.

a hearing. Whatever the circumstances may be, the deposits subject to insurance at the time of withdrawal or expulsion continue to be protected for a period of two years; and the bank must continue to pay assessments during that time. New deposits, however, are not covered by this provision. Thus were a person to have \$5,000 in a deposit account at the time of withdrawal or expulsion and were he subsequently to draw out \$4,000, only the remaining \$1,000 would continue to be insured, though he might thereafter replenish his account to \$5,000.

A member bank in the Federal Reserve System which loses its insured status either by withdrawal or by expulsion is not permitted to continue as a member; and a national bank in the same circumstances would have to forgo its federal charter and, if it were to continue in business, reorganize as a state-chartered bank.

According to a recent report of the FDIC, action had been taken against 131 insured banks for engaging in illegal and "unsafe and unsound" practices to the end of the year 1945. In 21 instances, the condemned practices were discontinued; in 103 cases, the banks ceased operations by suspension, merger, or succession; in 3 cases, the accused banks continued operations after expulsion from the insurance system; and 4 cases were pending.⁴

Powers of the FDIC.—The FDIC has been given powers under the law commensurate with its responsibilities. It passes upon the admission to the insurance system of banks which are not members of the Federal Reserve System. It may examine nonmember insured banks and require them to submit reports of condition. With the written consent of the Comptroller of the Currency and the Board of Governors, respectively, it may examine national and state member banks; and, in any case, it has the right of access to the reports of examinations made by examiners of the Comptroller's office and of the federal reserve banks. It passes upon certain changes in the organization and structure of insured nonmember institutions, such as reductions in capitalization, the retirement of capital notes and debentures, and the establishment and relocation of branches. In this regard, its approval must be obtained for any merger of insured and noninsured banks, for the transfer of assets from insured to noninsured banks in connection with the assumption of the formers' deposit liabilities by the latter, and for the assumption by insured banks of liability for the deposits of noninsured banks.

The FDIC, moreover, has the authority to proceed in a variety of ways to protect itself as insurer. It may, as has been mentioned, expel insured banks for illegal and unsafe practices. It may require insured banks to carry burglary and indemnity insurance. It may purchase the assets of insured banks which have been closed because of inability to meet their deposit liabilities, or grant loans upon the security of the assets. It is permitted to

⁴ *Annual Report*, 1945, p. 22.

purchase assets and to make loans to assist in the merging of "hazardous" insured banks with stronger institutions, and to encourage solvent institutions to assume the deposit liabilities of unsafe banks, whether the latter are still in operation or have already been closed.

Finally, the FDIC must be named as receiver for all national banks suspended because of insolvency; and it must accept appointment as receiver for insured state banks if the appointment is tendered by the state supervisory officials. Many state legislatures have amended their banking laws to require or permit the appointment of the FDIC as receiver for their insolvent banks.

Promotion of Mergers by the FDIC.—In its administration of the deposit insurance program, the FDIC prefers to devote its efforts to the rescue and rehabilitation of insured banks threatened with insolvency rather than to stand idly by awaiting bank suspension and then launching its work as receiver. In the main, the rescue work of the FDIC has for its objective the merging of weak banks with their sounder neighbors. To make mergers attractive to the sounder institutions, the FDIC has been quite generous in providing direct financial aid. In some cases, it buys the poor assets of the bank being absorbed, thus substituting cash for them, so that the absorbing bank takes only the sound assets plus the cash supplied by the FDIC; and in others, it makes loans upon the security of the assets taken over by the absorbing bank, at the same time guaranteeing the bank against loss. In all of its rescue work, the FDIC acts upon the assumption that, though it accepts immediate losses, such losses are less than they would be if the weak banks were permitted to continue operations until finally suspended for insolvency.

Procedure as Receiver.—When the FDIC is appointed as receiver for an insured bank which has been suspended, its agents immediately take possession of the bank's premises, its books, and its assets. The books are audited to determine the extent of the FDIC's insurance liability as well as the names and addresses of the insured depositors. When this work is completed—and it has required in most instances from ten to fourteen days⁵—the amount of the insured deposits is made immediately available. The FDIC may make payments to the depositors by providing them with accounts in another insured bank in the community, by issuing its own checks, or by establishing a new bank and making payments through it.

If the third alternative is selected, a "deposit insurance national bank," having neither capital nor a board of directors, is chartered by the Comptroller of the Currency. The insured accounts of the closed bank are then transferred to the new bank, where they may be withdrawn on demand. In addition, the bank may accept new deposits, holding them as cash or investing them in direct or guaranteed obligations of the United States. The "deposit insurance national bank" may be continued in operation as

⁵ *Annual Report, 1941, p. 18.*

an ordinary national bank if it is possible to capitalize it by private subscriptions, or it may be liquidated when it has served its temporary purpose.

Upon paying the proceeds of insured accounts, the FDIC requires the depositors to assign to it their rights against the closed bank. This "subrogation" of rights entitles the FDIC to share in the assets of the suspended bank to the same extent that the insured depositors would have shared had there been no insurance; but those depositors who have accounts of more than \$5,000 retain a claim against the assets measured by the uninsured portion of their accounts.

From the beginning of 1934 to December 31, 1945, the FDIC found it necessary to make disbursements in connection with the merger or receivership of 398 insured banks. Details respecting the deposits of these banks and the position of the depositors and of the FDIC are presented in Table 12.

TABLE 12

SUMMARY OF INSURED BANKS IN FINANCIAL DIFFICULTIES, 1934-1945

Number of banks in financial difficulties.....	398
Number of depositors.....	1,309,702
Depositors paid in full.....	1,260,730
Depositors partially paid.....	3,006
Depositors filing no claims.....	45,966
Amount of deposits.....	\$504,931,000
Estimated recoveries by depositors.....	\$502,149,000
Estimated loss to depositors.....	2,341,000
Unclaimed deposits.....	441,000
Disbursements of the FDIC.....	\$261,717,000
Estimated loss to the FDIC.....	31,111,000

Source: Annual Report of the Federal Deposit Insurance Corporation, 1945, p. 16.

Evaluation of Deposit Insurance

CASE FOR DEPOSIT INSURANCE

Although deposit insurance is now generally accepted in the United States as a firmly established institution, one still hears arguments opposing it in principle, as well as the federal system as it actually operates. The case for deposit insurance, on the other hand, need not long detain us. In 1933, a drastic change in banking policy was undoubtedly necessary to re-establish confidence in the banks—and deposit insurance was a dramatic innovation so far as its national application is concerned. Deposit insurance remains at the present time an important source of confidence in our banks. Many people feel safe with deposits in banking institutions, not because they have faith in the soundness of the banks, but because they have confidence in the federal government and its "guaranty" of their deposits. Demonstrating a continued lack of confidence in the banks—and supplying a source of irritation to some bank executives—is the practice of thousands of well-to-do people who keep accounts limited to \$5,000 in single institutions.

Because the United States seems to be committed more or less permanently to a system of independent unit banks, and because many of these banks do not have adequate resources available, public safeguards for their depositors seem to be a minimum essential. The federal government has assumed full responsibility for the protection of bank notes; hence the extension of its protection to deposit accounts does not appear to be revolutionary. Many people of small income have as their sole means of saving the accumulation of bank deposit accounts; and it seems to be quite reasonable, in the interest of the general welfare, to provide for them the assurance that their savings will not be lost through bank failures.

CASE AGAINST DEPOSIT INSURANCE

The chief argument offered in opposition to the principle of deposit insurance is that it tends to undermine safe and conservative bank management. Because the bank executives feel that their depositors are amply protected—so the argument runs—they will indulge in speculative loans and investments to produce larger returns for themselves and their stockholders. The norm of safe operations thus disappears.

Such an argument appears to be without foundation. In the first place, one may have his doubts as to the safety and conservatism of bank management in the period of the 1920's, when bankers had no insurance system to encourage speculative operations. Again, the integrity of bank executives is surely called into question if it is believed that the mere presence of deposit insurance should cause them to lose all sense of self-control. Finally, it must be remembered that the laws and regulations which govern loan and investment policies as well as other aspects of bank operations continue in force, and bank executives are responsible for their observance whether or not an insurance system exists.

An argument against the specific deposit insurance plan now in operation has already been mentioned: that, because of the method of calculating assessments, it discriminates against the banks which have large individual deposit accounts. It is impossible to deny that these banks—which are located for the most part in the large cities—are obliged to bear a disproportionate share of the cost of the insurance system. This is true not only because a smaller proportion of their accounts is insured, but also because they are on the whole sounder institutions than the smaller banks located elsewhere. In defense of the present method of assessment, however, it may be pointed out that these large city banks are frequently employed as correspondents of banks in the smaller communities of the country, and through such relationships they gain a goodly volume of profitable business. It is to their interest, therefore, that the whole banking system should be safe.

Sometimes one hears the argument that the present assessment is too small to build a sufficient reserve to meet a major banking crisis; and, again, that the assessment is too large—that the FDIC is accumulating an excessive

surplus. Obviously it is impossible, because of the scantiness of our experience with national deposit insurance, to decide which of these arguments is the more valid. To those who hold that the assessment is not sufficient to take care of a major collapse, the answer may be offered that it is the purpose of deposit insurance to prevent banking panics. Assuming that the confidence of depositors in the banks is sustained because of deposit insurance, "runs" should not develop in times of business crises. If, on the other hand, it is found in time that the assessment is too large, the size of the insurable deposit should be experimentally increased—a step which should strengthen public confidence in our banking institutions.

Part III

COMMERCIAL BANK OPERATIONS

Commercial Bank Statements

Commercial Bank Transactions

Primary Reserves

The Expansion of Demand Deposits

Loans and Discounts

Secondary Reserves and the Money Market

Commercial Bank Investments

History of Commercial Banking in the United States

Chapter 12

COMMERCIAL BANK STATEMENTS

The Balance Sheet

To understand the nature of commercial banking and to recognize the interrelations of various transactions, one should be conversant with the content of a bank's balance sheet. A balance sheet is a statement of assets and liabilities, and the word *balance* is used because the asset division of the statement is always equal to the liability division. Assets include all kinds of property owned by the banking institution. Some of the property, such as the building and equipment, is physical in character, but most of it, such as bonds, loans and discounts, and interest receivable, is intangible. Commercial bank transactions usually involve "rights" rather than tangible property; but rights are just as truly to be classified as property as are buildings. If a bank is entitled to receive from a borrower a specific amount of money at a certain time, the right is valuable and it may be enforced in the courts.

The liabilities indicate the rights of various persons and organizations to share in the assets of the bank. The stockholders, who are the owners of the bank, possess rights which are inferior to those of "outside creditors." In the event of liquidation, the latter must be paid off in full before any assets are distributed to the stockholders.

The balance sheet of a bank shows its financial position at a particular time, and the statement is therefore "true" only at that time. If a balance sheet is prepared as of the last day of a certain month, it would no longer be accurate as of the close of business on the first day of the following month, because the transactions of that day would have changed the character and the amounts of the assets and liabilities of the bank.

ASSET ACCOUNTS

Primary Reserves.—When combined, the first three assets shown in the upper division of the accompanying balance sheet of a fictitious bank are known as the primary reserves. They represent the resources which the bank has immediately available to meet all claims which may be presented for payment. *Cash in vault*, which consists of government paper money, federal reserve notes, and fractional coins, is maintained on hand to meet

daily withdrawals from deposit accounts. The other two items of this class, *reserve with the federal reserve bank* and *balances with other banks*, do not represent hand-to-hand money actually held at the bank, but rather deposits with other banking institutions. These deposits are similar to the demand deposits of individuals in that they can be withdrawn on demand to meet any contingencies.

If a bank is a member of the Federal Reserve System, it must keep a reserve balance on deposit with the reserve bank of its district. The reserve may at any time exceed the minimum specified; but if it falls below the minimum, a penalty measured by the amount of the deficiency is assessed. In addition to keeping the required deposit with the federal reserve bank, a bank often finds it convenient, especially if it is in the interior of the country, to keep deposits with one or more banks in the principal money centers. Drafts drawn upon these balances may be sold to customers whose personal checks might not be acceptable in making certain payments. In addition, in settling clearinghouse balances, in buying securities, and in other similar transactions, the bank may draw drafts against its city deposits, as well as against its reserve account with the federal reserve bank. A bank which holds deposit accounts for other banks and which provides various other services is known as a "correspondent bank."

Cash Items.—The account *cash items in process of collection* consists of checks drawn upon other banks received by the First National Bank of Utopia—checks which have been sent to the federal reserve bank or to correspondent banks for collection. *Exchanges for clearinghouse* are similar in character except that payment on them will be collected locally. These two items might be regarded, at first glance, as a portion of the primary reserves for the reason that they will be turned into hand-to-hand money or inter-bank deposits within a very short period of time. On second thought, however, the exclusion of such items from the primary reserves will be found preferable, because other banks have items drawn upon the First National Bank which are also in the process of collection and which will be soon presented for payment. In other words, the cash items and the exchanges for clearinghouse will normally be offset by incoming cash items and exchanges drawn upon the First National Bank, so that the net balance received, if any, will be small in amount. In fact, a net balance may have to be paid.

The account *cash items not in the process of collection* also consists of checks upon other banks deposited by the customers of the First National Bank. The only reason for listing them separately is that they have not been sorted and made ready for the clearinghouse or for mailing to the federal reserve bank or to correspondent banks.

Secondary Reserves and Other Investments.—Usually a commercial bank, in the interest of safety, holds a portion of its assets in the form of securities readily convertible into hand-to-hand money. At times, the with-

drawal of deposits may be so heavy as to reduce the primary reserves materially, and the bank must be in a position quickly to replenish them. As the disposal of the readily convertible securities may be effected to provide new primary reserves, such securities are appropriately called secondary reserves.

FIRST NATIONAL BANK OF UTOPIA
STATEMENT OF ASSETS AND LIABILITIES
DECEMBER 31, 194—

Assets

Cash in vault.....	\$ 213,362
Reserve with federal reserve bank.....	5,913,588
Balances with other banks.....	1,302,243
Cash items in process of collection.....	286,224
Exchanges for clearinghouse.....	193,451
Cash items not in process of collection.....	63,523
United States government obligations.....	5,627,299
State, county, and municipal securities.....	863,105
Other bonds and securities.....	1,110,042
Loans and discounts.....	4,811,203
Overdrafts.....	1,309
Customers' liability on account of acceptances.....	246,129
Acceptances of other banks and bills of exchange sold with indorsement...	35,200
Bank building and equipment.....	452,650
Real estate other than bank building.....	65,067
Other assets.....	45,644
Total assets.....	<u>\$21,230,039</u>

Liabilities

Demand deposits of individuals, partnerships, and corporations.....	\$10,339,155
Time deposits of individuals, partnerships, and corporations.....	3,610,100
United States government and postal savings deposits.....	209,927
Deposits of state, county, and municipal governments.....	674,381
Balances of other banks.....	2,835,612
Certified checks, cashiers' checks, cash letters of credit, and travelers' checks outstanding.....	646,231
Bills payable.....	325,000
Rediscounts.....	75,000
Acceptances outstanding.....	283,009
Acceptances of other banks and bills of exchange sold with indorsement..	35,200
Dividends payable.....	24,000
Other liabilities.....	117,623
Common stock.....	600,000
Preferred stock.....	200,000
Surplus.....	800,000
Undivided profits.....	254,801
Reserve for contingencies.....	200,000
Total liabilities.....	<u>\$21,230,039</u>

Not all the securities which a commercial bank owns are readily convertible into hand-to-hand money, and those which fail to satisfy this qualification are not included among the secondary reserves. Because of the superior quality of secondary reserve assets, they ordinarily pay a smaller return

than other investments; hence it is to the interest of the bank to keep the volume of its secondary reserves at a minimum commensurate with safety.

The investments listed in the balance sheet of the First National Bank—*United States government obligations, state, county, and municipal securities, and other bonds and securities*—cannot be classified, at first glance, either as secondary reserves or as “other investments.” For accurate classification, one must know certain facts respecting the character of the securities—facts not revealed in the illustrative balance sheet. In later chapters, we shall investigate more fully the nature of secondary reserves and other bank investments.¹

Loans and Discounts.—The account *loans and discounts* is one of the most important which appears in the balance sheet of a commercial bank. The commercial banks, regarded collectively, are the chief suppliers of short-term loans in modern economic society, and their officers must ordinarily devote more attention to the making of proper loans than to any other matter. What is more, the granting of loans is likely to be a more profitable operation than the purchase of investment securities.

A customer who borrows from a commercial bank is usually required to sign as evidence of his debt a note promising the repayment of the loan on demand or at a fixed time in the future. The pledge of collateral by the borrower to safeguard the bank may or may not be required. Whether the transaction is a *loan* or a *discount* depends upon the lending policy of the bank; and the policy of most banks favors the granting of discounts rather than the making of loans. When a note is discounted, it ordinarily bears no interest on its face, but the customer receives less than the face value of the note; if the note is given for a loan, it bears interest and the customer receives the face value. An example will clarify the distinction. Suppose that a person wants to borrow \$1,000 for a year at 6 per cent interest. If the transaction is a discount, the bank advances \$940 and the customer must pay \$1,000 at the end of the year; if a loan, the bank advances \$1,000 and the customer must pay \$1,060 at maturity.² In regard to the discount, the customer does not “pay interest in advance,” as is sometimes said, for the interest “accrues” or accumulates with the passing of time; he merely pays interest of \$60 at the end of the year on an advance of \$940, and the rate is actually slightly higher than 6 per cent, that is, 6.383 per cent.

The account *overdrafts* is listed next to loans and discounts, because overdrafts are really short-term loans to bank customers who have drawn checks upon their accounts in excess of their balances. The bank is under no obligation to honor such checks; but it may do so if the overdrafts are small and if the customers’ good will is valued.

¹ See Chapters 17 and 18.

² Although the technical distinction between the terms *loan* and *discount*, as described here, is useful in certain respects, it is convenient to use the single term *loan* when referring to all types of advances granted by banking institutions. In this text, for example, the word *loans* is often used in place of the more cumbersome *loans and discounts*.

Bankers' Acceptances.—Two accounts appear in the balance sheet of the First National Bank in approximately equal amounts—*customers' liability on account of acceptances* in the asset division, and *acceptances outstanding* in the liability division. Frequently the accounts are exactly equal, and there is every reason why they should be equal or nearly so. A banker's acceptance is an instrument by means of which the good name of the bank may be substituted for the less known name of its customer; and it is used for various types of transactions, particularly in international trade. For example, a bank on behalf of its customer may give to a foreign exporter the right to draw a draft against it ordering the payment of a specific sum of money at some future time. When the draft is presented, the bank writes "accepted" across its face, together with the date and its signature. The bank thus becomes obligated to make payment at maturity. The customer, meanwhile, executes a contract with the bank in which he promises to provide funds to pay off the acceptance at maturity. All outstanding acceptances are liabilities of the bank, and are so shown, and the obligations of customers to make payment are assets. The reason why the asset account is somewhat smaller than the liability account in the balance sheet of the First National Bank is that some of the customers must have met their obligation to the bank before the acceptances matured.

Similar in some respects to the acceptance accounts just described are two other items appearing on either side of the balance sheet and having identical names and amounts: *acceptances of other banks and bills of exchange sold with indorsement*. The explanation is that the First National Bank at one time must have sold some bankers' acceptances drawn upon other banks and other similar instruments. In selling them, it was required to add its own indorsement, an action which made it contingently liable for their payment. Although such a contingent liability does not often materialize, it is desirable to show it in the balance sheet to make the statement complete. But there is a compensating asset, namely, the claim which the bank would have against the party primarily liable and against prior indorsers in case of default.

Bank Building and Equipment.—The bank building, the land upon which it stands, and the equipment of the bank are usually the only important physical assets owned by a commercial banking institution. Banking law often limits the amount which a bank may invest in its building; the national law, for example, sets this amount as the total of the bank's paid-in capital, unless the Comptroller of the Currency specifically permits a larger investment.

Although the First National Bank lists a second physical asset, *real estate other than banking building*, this account is likely to remain for only a limited time. National banks and many state banks are not permitted to deal in real estate. They may, however, make mortgage loans on real estate, and if the mortgages are defaulted, they may foreclose upon the pledged

property. The banking laws usually require that foreclosed property be sold within a "reasonable" time.

Other Assets.—The account *other assets* is a catchall for property and property rights not elsewhere shown. Its principal component is likely to be the interest which the bank has earned upon its loans and investments and which it has not yet received.

LIABILITY ACCOUNTS

Deposits.—In turning to the liability section of a bank's statement, we find that various classes of deposits comprise the principal obligations of the bank. The deposits of federal, state, and local governments are segregated because federal law and the laws of most of the states require fiscal officers to receive a pledge of assets, particularly government bonds, to safeguard whatever funds they deposit in banks. As for the distinction between demand and time deposits, the former, according to federal reserve regulations, are payable either on demand or on notice of less than thirty days; and the latter are payable on notice of thirty days or more. *Balances of other banks* represent deposits of certain banking institutions with the First National Bank, presumably for correspondent purposes.

Certified Checks and Similar Instruments.—A certified check, as we have seen, is a customer's check which has been stamped by the bank with a notation to assure the payee that funds are available to meet it when it is presented for payment. A cashier's check is an order on the bank to pay on demand drawn by one of its own officers and most commonly used in the payment of expenses. Travelers' checks are engraved instruments in return for which the holder may demand hand-to-hand money at any time; and cash letters of credit authorize specified individuals to draw drafts against the bank payable on demand. All these instruments have one thing in common: they represent obligations of the bank to pay hand-to-hand money on demand and are therefore similar in all basic respects to demand deposits.

Bills Payable and Rediscounts.—Banks may sometimes have occasion to borrow from other banking institutions to replenish their primary reserves. If loans can be negotiated at low interest rates, they may be preferred to the sale of some of the bank's investment securities when the reserves need to be replenished. Advances may be obtained from the federal reserve banks or from correspondent banks. The bank may borrow upon its own promissory note, or upon the notes of its customers which it holds; in the former case, the liability is listed as *bills payable*, and in the latter, as *rediscounts*. In recent years, banks have customarily borrowed, on the few occasions when it has been necessary, upon their own promissory notes.

Dividends Payable and Other Liabilities.—When a dividend has been declared by the board of directors of a solvent corporation, it becomes an

obligation of the corporation to pay; this fact explains the listing of *dividends payable* as a liability in the balance sheet of the First National Bank.

The account *other liabilities* includes all liabilities not otherwise shown excepting the capital accounts. As such, it includes all the unpaid expenses—wages, taxes, interest payable, and other expenses which have not yet been met—as well as interest received from customers which has not yet been earned.

Capital Accounts.—All the foregoing liabilities represent the claims of “outside creditors” against the assets of the bank; and the capital accounts represent the investment of the stockholders in the bank, that is, the claim of the stockholders against the assets. It is scarcely necessary to repeat that all outside claims must be satisfied in full before the stockholders receive any payment in the event of liquidation. Even among the stockholders, some may have a claim upon the assets superior to that of other stockholders; and this is almost invariably true when more than one class of stock is outstanding. Charter provisions which govern the issue of preferred stock usually provide that in liquidation the preferred stockholders will be paid the par value of their stock before the common stockholders receive anything.

Bank stock is frequently sold at prices above its par value to amass additional funds for the operations of the bank and for the protection of the depositors. The premiums, as the excess payments are called, are reflected in the *surplus* account, which represents a claim of the stockholders against the assets of the bank over and above the face value of their stock. The surplus account may be further increased by action of the board of directors in transferring to it past profits which have not been paid out in dividends. When this is done, the profits are “plowed under” further to strengthen the bank and maintain its resources.

Profits not thought to be permanent additions to the capital of a bank are turned into the *undivided profits* account. Hence this account is similar to the “current” or “earned” surplus accounts which appear on the books of industrial corporations, while a bank’s surplus account may be likened to the “capital surplus” accounts of industrial corporations. When dividends are declared, the undivided profits account is reduced by the amount involved.

A portion of the profits may be set aside in an account labeled *reserve for contingencies*; and this account, the surplus account, and the undivided profits account represent contributions of the stockholders to the assets of the bank over and above the par value of their stock. The reserve for contingencies is designed to take care of any extraordinary losses which may occur, so that they will not encroach upon the surplus and undivided profits. A serious decline in bond prices, for example, might wipe out a substantial portion of the value of the investments shown in the asset division, and the

anticipated loss upon their sale could be charged to the reserve for contingencies.

Capital-Deposit Ratio.—Much attention in the United States has been centered upon the ratio of the total capital accounts of a commercial bank to its total "outside" liabilities as a criterion by which the strength of the bank may be judged. Such a ratio, one might say, measures the protection provided for depositors through the investment of stockholders—it indicates the volume of losses which the bank is able to absorb before the assets needed for the payment of depositors' claims are encroached upon. Thus if the capital-deposit ratio were 1 to 9, the bank could suffer losses equal to 10 per cent of its total assets and it still would have sufficient resources remaining to pay its depositors in full; if, however, the ratio were 1 to 19, losses of more than 5 per cent of the total assets would encroach upon those needed to satisfy depositors' claims.

Until recently, American commercial bankers accepted a capital-deposit ratio of 1 to 10 as a minimum requirement for the safety of depositors; such a standard may be said to have become a banking tradition. Today, however, few banks can lay claim to a capital-deposit ratio of that strength—ratios of 1 to 20 and 1 to 25, and even weaker ratios, have become all too common. In the period since 1934, during which our heavy imports of gold and the voluminous borrowings of the federal government have caused a great increase in deposit liabilities, the market for new offerings of bank stock has not been very favorable; accordingly, bankers have generally found it impossible to expand their capital accounts at a pace commensurate with the growth of deposits. Despite the weakening of capital-deposit ratios, however, most bankers feel that depositors continue to be amply protected because of the fact that so large a proportion of bank assets consists of cash and obligations of the federal government. In other words, they hold that the capital-deposit ratio has lost the significance which it had when bank assets were largely composed of commercial loans and other business paper.

Since the introduction of national deposit insurance, the depositors in insured banks—to the extent that their accounts have not exceeded the insurable limit of \$5,000—have been in a position to disregard the capital-deposit ratios of the banks in which they have kept their accounts. But the Federal Deposit Insurance Corporation, as guarantor, has not been able to display a similar lack of concern; on the contrary, it has given much attention to the question of adequate bank capital, as is evidenced by the repeated discussions of the matter in its annual reports. For long, the FDIC accepted the 1-to-10 standard and sought to uphold it, but it has been willing of late to recognize merit in the contention that depositors are protected by cash and government obligations among bank assets, even going so far as to admit that a "standard substantially below the 10 per cent ratio would for the time being seem to be justified."³

³ *Annual Report*, 1945, p. 10.

The Statement of Income and Expenses

Commercial banks prepare statements of income and expenses to show the results of operations for a year or other period of time. Such a statement for all the member banks of the Federal Reserve System for the year 1945 is presented in Table 13.

INCOME

Interest and Dividends.—In the analysis of the statement, one immediately notices, as one would expect, that interest and dividends far outrank all other sources of income, accounting in this instance for approximately 81 per cent of the total earnings. It is interesting to note that though the members banks as a whole had almost four times as much invested in securities as in loans in the year 1945, the interest and dividends earned on investments equaled only approximately twice the interest earned on loans and discounts made direct to the banks' own customers. This result is explained by the fact that banks generally charge substantially higher rates of interest on their direct loans than they are able to earn on purchased securities.

Service Charges.—An expanding source of income for commercial banks is found in commissions, fees, and service charges of all kinds. Before the banking collapse of the early 1930's, many bankers neglected this source of income by providing many services free of charge or at only nominal charges. But the decline in the rates of interest upon loans and security holdings has led many bankers to reconsider their relations with their customers; they have generally come to the conclusion that they, like other businessmen, should not be called upon to provide services from which no return is derived. The first comprehensive attempt to eliminate free services in commercial banking, and to determine charges for bank services upon a basis of their cost, was the preparation of a "code of fair competition" by the American Bankers Association in accordance with the terms of the National Industrial Recovery Act of 1933. Though the pertinent provisions of that legislation were declared unconstitutional by the Supreme Court, the extension of service charges has continued to the present time. Commercial bankers have been much interested in the use of cost-accounting techniques in allocating clerical and other expenses to the customers in whose behalf they are incurred.

Many of the new service charges are levied upon demand deposit accounts. Before 1933, it was often possible for individuals to maintain demand accounts having only trifling balances, but now an average balance of not less than a stipulated figure, such as \$200, is generally required. If a smaller average balance is kept, the depositor must pay a fee—commonly one dollar per month—to have the account kept open. Although it used to be possible for the holder of a demand deposit account to make numerous deposits and

to write numerous checks in the course of a month, bank policy now limits the "free" activity of a demand account. The number of transactions which the banks are willing to handle free of service charges is usually stated in relation to the average balance maintained, such as ten transactions for an

TABLE 13

INCOME AND EXPENSES OF MEMBER BANKS OF THE FEDERAL RESERVE SYSTEM IN 1945

(In thousands of dollars)

Earnings:

Interest and dividends on securities.....	\$1,136,170	
Interest and discount on loans.....	571,776	
Service charges and fees on loans.....	16,386	
Service charges on deposit accounts.....	87,499	
Other charges, commissions, fees, etc.....	63,833	
Trust department.....	112,134	
Other current earnings.....	114,379	\$2,102,177

Expenses:

Salaries—officers.....	208,237	
Salaries and wages—others.....	371,374	
Directors' and committee members' fees.....	10,757	
Interest on time deposits.....	182,874	
Interest on borrowed money.....	2,286	
Taxes other than on net income.....	83,476	
Recurring depreciation on banking house, furniture, and fixtures.....	34,004	
Other current expenses.....	374,625	1,267,633

Net current earnings before income taxes..... 834,544

Recoveries, profits on securities, etc.:

Recoveries on securities.....	113,221	
Profits on securities.....	238,835	
Recoveries on loans.....	55,918	
All other.....	45,811	453,785
		1,288,329

Losses and charge-offs:

On securities.....	117,785	
On loans.....	46,541	
All other.....	65,530	229,856

Net profits before income taxes..... 1,058,473

Taxes on net income:

Federal.....	250,281	
State.....	19,781	270,062

Net profits.....\$ 788,411

Source: Federal Reserve Bulletin, June, 1946, p. 674.

account having an average balance of \$200. "Transactions" include checks drawn against the account as well as checks and other cash items deposited in the account. Transactions in excess of the number allowed are subject to service charges running generally from three to five cents each.

EXPENSES

The principal item of expense of a commercial bank is the compensation paid to directors, officers, and employees. Although directors are not paid salaries unless they are also officers of the bank, they are frequently given fees for attendance at meetings of the board. In the statement of member bank income and expenses (Table 13), an extraordinarily large proportion of the total compensation paid appears to have gone to the bank officers—approximately 37 per cent of the total. This figure indicates what many people know to be true, namely, that the compensation paid to bank employees below the rank of cashier or department head is surprisingly low when compared with the handsome salaries paid to the officials. For this reason, unfortunately, a career in commercial banking is often unattractive to young men and women. Even the opportunity to "work up" to executive positions is probably more limited in commercial banking than in other fields, because of the quite common practice of bringing into executive positions men of influence and financial connections in preference to capable employees who have worked long years in subordinate positions.

Although the rates of interest earned by banks on loans and investments have been greatly reduced in recent years, the reduction has been accompanied by a countervailing decrease in the rates paid on depositors' accounts. Interest on demand deposits—a sizable item of expense before 1933—has been entirely eliminated; and the rates paid on time deposits have been reduced to unprecedentedly low levels. Rates of interest on time deposits exceeding 1 per cent per annum are becoming increasingly rare, and a few banks have suspended interest payments on time deposits entirely. Many banks limit the size of the time deposits upon which they are willing to pay interest. Other interest payments—those for borrowed money—have been practically nonexistent for many years, because the large reserves held by banks have made borrowing unnecessary.

NET EARNINGS AND NET PROFITS

In the statement of income and expenses, two "net" figures "before income taxes" appear—one for earnings, and one for profits. The net earnings roughly measure the results of the current operations of the bank. Items deducted from net earnings to obtain net profits represent adjustments for loans which have "gone bad," for investment securities which have declined in market value, and for securities which have been sold at prices less than those at which they had been carried on the books; and items added include profits on the sale of securities, the receipt of payments on loans previously written off as doubtful, and the rise in market value of investment securities to prices above those to which they had previously been written down.

Because of the substantial alteration of net earnings occasioned by the foregoing additions and deductions, the "net profits before income taxes"

reported by a commercial bank for any one year may not be of great significance. Thus, in times of depression, commercial bank profits are likely to fall off much more rapidly than the decline in general business activity would seem to warrant. Such a decline results not only from a diminution of current earnings, but also from the losses which the bank takes into account in writing off doubtful loans as worthless, and in reducing the book value of securities because of the drop in their market value. In times of business recovery, on the other hand, commercial bank profits are likely to bound up more rapidly than those of other types of business enterprise, because extraordinary profits are realized in the collection of loans previously considered worthless, in the sale at good prices of securities previously written down, and in a recovery in the market value of other securities.

SIZE OF BANK PROFITS

Many people are of the opinion that commercial banking is extremely profitable—that because commercial banks enjoy the special privilege of manufacturing money there should be no conceivable limit to their income-earning capacity. The bankers, on their part, constantly bemoan the loss of income resulting from the decline in the demand for direct loans and the reduction in interest rates payable upon investment securities, as well as from the rising costs of operation resulting from increased prices generally and the ever-growing tax burden.

Where does the truth lie? Neither the people who exaggerate the profitability of commercial banking nor the bankers who belittle their profits are correct. In truth, commercial banking is by no means the most profitable field of business enterprise, nor is it unproductive of substantial returns to the stockholders. The profits of commercial banking, like those of other kinds of business, vary from time to time and from place to place. During the long depression beginning in 1929, bank profits fell to low levels and were often turned into losses—but the same was true in many other sectors of business activity. Before 1929 and since 1935, on the other hand, bank profits have been appreciably large.

Statistics of Bank Profits.—Accurate statistics of the income and expenses of member banks in the Federal Reserve System are published periodically by the Board of Governors, and they may be taken as reasonably indicative of the income and expenses of commercial banks generally. In the year 1945, as Table 13 shows, all member banks enjoyed total profits of \$788,411,000 after the deduction of federal and state income taxes. As their total capital accounts were \$7,243,000,000,⁴ their profit ratio was 10.9 per cent. A rate of profits of 10.9 per cent appears to be quite modest for the prosperous year 1945, but it is to be noted that the rate is stated in terms of total capital accounts and not merely in terms of capital stock alone. In addition to the

⁴ Average of amounts reported on call dates in 1945 and on last call date of 1944.—*Federal Reserve Bulletin*, June, 1946, p. 674.

capital stock at par value, the capital accounts include paid-in and accumulated surplus, undivided profits, surplus appropriated for contingencies, and other miscellaneous accounts. These accounts, it is true, represent the total of the stockholders' investment in the banks, and it is therefore not inappropriate to state the rate of profits in terms of capital invested. But such a ratio often cannot be compared directly with the rates of profits reported by nonbanking corporations, since it is customary for the latter to state their earnings in terms of capital stock alone—as earnings “per share of common stock.” If consideration is given only to the capital stock of member banks,⁵ then the profits of 1945 would amount to approximately \$30.41 per \$100 of capital stock. On the other hand, one must remember, in comparing the profitability of banks and of nonbanking corporations, that the former normally have a much larger stockholders' “equity” in the various surplus accounts than have the latter.

Variability of Bank Profits.—In terms of year-to-year operations, bank profits and losses are by no means uniform, for commercial banks are subject to all the vicissitudes of the business cycle. In periods of general prosperity bank profits swell to large totals, and in years of depression, many banks suffer heavy losses. Table 14 indicates the variability of bank profits in the

TABLE 14
RATIOS OF NET PROFITS TO CAPITAL ACCOUNTS OF MEMBER BANKS,
1925-1945

Year	Ratio	Year	Ratio
1925	9.1%	1936	8.9%
1926	9.0%	1937	6.3%
1927	8.7%	1938	4.9%
1928	9.0%	1939	6.3%
1929	8.8%	1940	6.2%
1930	4.6%	1941	6.7%
1931	0.2%	1942	6.4%
1932	4.5% ^a	1943	8.8%
1933	7.3% ^a	1944	9.7%
1934	4.5% ^a	1945	10.9%
1935	4.1%	—	—

^a Loss

Source: *Annual Report of the Board of Governors of the Federal Reserve System*, 1934, p. 179, and 1937, p. 141, and *Federal Reserve Bulletin*.

course of the business cycle.

Profits vary also according to the location of banks. As a general rule, banks located in the Northeastern states are less profitable than those of the Middle West, the Far West, and the South. According to the data published by the Board of Governors for the year 1945, the net profits of all member

⁵ Taking, in this instance, total capital stock outstanding on December 31, 1945, only, amounting to \$2,592,364,000.—*Federal Reserve Bulletin*, May, 1946, p. 544.

banks in the Boston and Cleveland reserve districts averaged 9.1 per cent on total capital accounts, in the New York reserve district, 10.8 per cent, and in the Philadelphia district, 10.3 per cent; while the profits of member banks in the Chicago district averaged 12.2 per cent, in the Richmond district, 10.2 per cent, in the Dallas district, 10.0 per cent, in the Atlanta district, 13.4 per cent, in the Kansas City and St. Louis districts, 11.6 per cent, in the Minneapolis district, 11.8 per cent, and in the San Francisco district, 12.1 per cent.⁶

Further variability is shown according to the size of banks. Size may be conveniently indicated in terms of deposits, for there is obviously a close relationship between the amount of deposits which a bank has and the amount of its total resources. Statistics of profits earned in 1945 by member banks classified on the basis of deposits are presented in Table 15. The data

TABLE 15
PROFITS OF MEMBER BANKS CLASSIFIED BY SIZE IN 1945

(Dollar amounts in thousands)

Deposits	Number of banks	Net profits	Total capital accounts	Ratio of profits to capitals account
\$1,000 and under	573	\$ 2,788	\$ 37,052	7.5%
1,000-2,000	1,426	13,804	147,872	9.3%
2,000-5,000	2,337	47,741	468,186	10.2%
5,000-10,000	1,159	50,080	479,213	10.5%
10,000-25,000	773	73,686	686,248	10.7%
25,000-50,000	265	56,321	490,993	11.5%
50,000-100,000	129	50,273	462,613	10.9%
Over 100,000	176	492,784	4,793,712	10.3%

Source: *Federal Reserve Bulletin*, June, 1946, p. 678. (Ratios computed by author.)

show a remarkably close relationship between size and the ratio of net profits to total capital accounts—a fact which leads us to conclude that business opportunities, managerial efficiency, and other factors must all favor the larger institutions.

⁶ *Federal Reserve Bulletin*, June, 1946, p. 682.

Chapter 13

COMMERCIAL BANK TRANSACTIONS

While it is possible to learn much about the nature of commercial bank operations by a study of the statement of assets and liabilities and by a consideration of the income and expenses of a bank, it is even more advantageous to devote some time to examining the interrelations among transactions—interrelations which bring about changes in the accounts which appear in the statements.

The present chapter, accordingly, is devoted to a survey of the more common transactions undertaken by commercial banks. Our attention will be centered chiefly upon the changes which take place in the statement of assets and liabilities, because it is the statement which shows the position of the bank at a given time; transactions which involve income and expenses will be referred to only in summary to show how they, too, affect the statement of assets and liabilities. Although bank accounting is a complex subject, we must avoid so far as possible its minute technicalities.

Transactions upon Organization

1) The organizers of the First National Bank of Utopia, let us say, offer 5,000 shares of common stock of \$100 par value for subscription at a premium of 40 per cent, that is, at \$140 per share. If we assume that the stock is subscribed in full and that the subscriptions are paid in hand-to-hand money, the balance sheet would appear simply as follows:

<i>Assets</i>		<i>Liabilities</i>	
Cash in vault	700,000	Capital stock	500,000
		Surplus	200,000

2) The original board of directors of the bank use \$300,000 of the money received from the stockholders to purchase a bank building and necessary equipment. The balance sheet then becomes

<i>Assets</i>		<i>Liabilities</i>	
Cash in vault	400,000	Capital stock	500,000
Bank building and equipment	300,000	Surplus	200,000

3) Since the new bank has a charter from the federal government, it is required to be a member of the Federal Reserve System, and as a member it must purchase stock in the federal reserve bank of its district in an amount equal to 3 per cent of its own capital stock and surplus. When the federal reserve bank stock has been acquired, the balance sheet reads

<i>Assets</i>		<i>Liabilities</i>	
Cash in vault	379,000	Capital stock	500,000
Stock of federal reserve bank	21,000	Surplus	200,000
Bank building and equipment	300,000		

Deposit Transactions

1) The First National Bank of Utopia receives \$400,000 of deposits from customers in the form of hand-to-hand money. Of these, \$250,000 are demand deposits subject to withdrawal by check, and the remaining \$150,000 are time deposits. The bank keeps a separate record or account for each depositor, but in preparing its balance sheet, it merely shows the total of the two classes of deposits, as follows:

<i>Assets</i>		<i>Liabilities</i>	
Cash in vault	779,000	Demand deposits	250,000
Stock of federal reserve bank	21,000	Time deposits	150,000
Bank building and equipment	300,000	Capital stock	500,000
		Surplus	200,000
	<u>1,100,000</u>		<u>1,100,000</u>

2) Other customers deposit \$300,000 of checks drawn upon other banks in the same city which, with the First National Bank, belong to the local clearinghouse association. Of these deposits, \$180,000 are placed in demand accounts, and \$120,000 in time accounts. The balance sheet then becomes

<i>Assets</i>		<i>Liabilities</i>	
Cash in vault	779,000	Demand deposits	430,000
Exchanges for clearinghouse	300,000	Time deposits	270,000
Stock of federal reserve bank	21,000	Capital stock	500,000
Bank building and equipment	300,000	Surplus	200,000
	<u>1,400,000</u>		<u>1,400,000</u>

3) Still other customers deposit \$500,000 of checks drawn upon banks located in other cities, of which \$320,000 are placed in demand accounts and \$180,000 in time accounts. The First National Bank sends \$300,000 of these checks to the district federal reserve bank for collection, and the remaining \$200,000 to correspondent banks in principal cities. The reserve bank is authorized to keep the proceeds of the collections as a reserve account of the First National; and the correspondents are asked to keep the proceeds of their collections in deposit accounts upon which the First National may

draw on demand. While the checks are in transit, the affected accounts are the following:

<i>Assets</i>		<i>Liabilities</i>	
Cash items in process of collection	500,000	Demand deposits	750,000
		Time deposits	450,000

When the federal reserve and correspondent banks have cleared the checks sent to them and have credited the account of the First National Bank, the complete balance sheet appears as follows:

<i>Assets</i>		<i>Liabilities</i>	
Cash in vault	779,000	Demand deposits	750,000
Reserve with federal reserve bank	300,000	Time deposits	450,000
Balances with other banks	200,000	Capital stock	500,000
Exchanges for clearinghouse	300,000	Surplus	200,000
Stock of federal reserve bank	21,000		
Bank building and equipment	300,000		
	<u>1,900,000</u>		<u>1,900,000</u>

4) The First National Bank receives as demand deposits from some of its customers \$25,000 of checks drawn by other customers against their demand accounts. While this transaction would require a shifting of amounts among the accounts of paying and receiving customers, the balance sheet would not be affected, because the total of the demand deposits would remain unaltered.

5) Customers who have \$30,000 of time deposits ask that they be transferred to demand accounts. Only the two deposit accounts in the balance sheet are affected, as follows:

<i>Assets</i>	<i>Liabilities</i>
	Demand deposits 780,000
	Time deposits 420,000

Withdrawal Transactions

1) Demand depositors at the First National Bank withdraw \$25,000 in hand-to-hand money, and time depositors, \$20,000. The complete balance sheet is altered as follows:

<i>Assets</i>		<i>Liabilities</i>	
Cash in vault	734,000	Demand deposits	755,000
Reserve with federal reserve bank	300,000	Time deposits	400,000
Balances with other banks	200,000	Capital stock	500,000
Exchanges for clearinghouse	300,000	Surplus	200,000
Stock of federal reserve bank	21,000		
Bank building and equipment	300,000		
	<u>1,855,000</u>		<u>1,855,000</u>

2) The city clearinghouse association presents to the First National Bank \$175,000 of checks drawn by the latter's customers against their demand accounts and deposited with other bank members of the association. Because the First National Bank sent to the clearinghouse \$300,000 of checks drawn upon the other banks, the association owes the First National the net difference of \$125,000. Often such clearinghouse balances are settled by transfers in the reserve accounts of the debtor and creditor banks at the federal reserve bank of the district. If that is done in this instance, the balance sheet would become

<i>Assets</i>		<i>Liabilities</i>	
Cash in vault	734,000	Demand deposits	580,000
Reserve with federal reserve bank	425,000	Time deposits	400,000
Balances with other banks	200,000	Capital stock	500,000
Stock of federal reserve bank	21,000	Surplus	200,000
Bank building and equipment	300,000		
	<u>1,680,000</u>		<u>1,680,000</u>

3) Checks drawn by demand depositors of the First National Bank are received in the amount of \$60,000 from its city correspondents, and in the amount of \$45,000 from the district federal reserve bank. The correspondents authorize the First National to keep the proceeds on deposit to their credit; and the First National, in turn, authorizes the federal reserve bank to charge its reserve balance for the checks delivered. When these transactions have been properly entered, the balance sheet appears as follows:

<i>Assets</i>		<i>Liabilities</i>	
Cash in vault	734,000	Demand deposits	475,000
Reserve with federal reserve bank	380,000	Time deposits	400,000
Balances with other banks	200,000	Balances of other banks	60,000
Stock of federal reserve bank	21,000	Capital stock	500,000
Bank building and equipment	300,000	Surplus	200,000
	<u>1,635,000</u>		<u>1,635,000</u>

4) A man comes to the bank and asks for hand-to-hand money in payment of a check of \$1,200 drawn by a customer whose demand deposit balance has been exhausted. Because the deficient customer is a reputable businessman, the bank decides to make payment on the check and then require the businessman to reimburse it. The *cash in vault* account would be affected and a new account would appear in the balance sheet, as follows:

<i>Assets</i>		<i>Liabilities</i>
Cash in vault	732,800	
Overdrafts	1,200	

Loan and Investment Transactions

1) Customers of the First National Bank arrange for advances or discounts in the amount of \$450,000. The rate of interest charged averages 4 per cent per annum, and the average maturity is three months; hence the total advanced is \$4,500 less than the face value of the customers' promissory notes. The customers take \$40,000 in hand-to-hand money and the remainder as increased credits in their demand deposit accounts. Immediately upon the completion of these transactions, the balance sheet reads as follows:

<i>Assets</i>		<i>Liabilities</i>	
Cash in vault	692,800	Demand deposits	880,500
Reserve with federal reserve bank	380,000	Time deposits	400,000
Balances with other banks	200,000	Balances of other banks	60,000
Loans and discounts	450,000	Other liabilities *	4,500
Overdrafts	1,200	Capital stock	500,000
Stock of federal reserve bank	21,000	Surplus	200,000
Bank building and equipment	300,000		
	<u>2,045,000</u>		<u>2,045,000</u>

* *Unearned discount.*

2) Additional advances to customers as loans are made in the amount of \$200,000, averaging four months in maturity at a rate of interest averaging 5 per cent per annum. As there is no immediate interest calculation, only two accounts in the balance sheet are affected, assuming that the borrowers take the entire face value of the loans as credits in their demand accounts:

<i>Assets</i>		<i>Liabilities</i>	
Loans and discounts	650,000	Demand deposits	1,080,500

3) Next, the First National Bank buys at par \$200,000 of bonds from the United States Treasury, \$200,000 of corporation bonds at par, and \$100,000 of the bonds of the city in which it is located, also at par. The Treasury leaves the proceeds of its bond sales on deposit temporarily with the First National Bank, that is, the bank is required only to give the Treasury a demand deposit balance of \$200,000. The bank pays for the corporation bonds by means of a draft of \$100,000 drawn upon one of its city correspondents, and a draft of \$100,000 upon the federal reserve bank; and it pays for the city bonds by issuing a cashier's check drawn upon itself. After these transactions have been entered upon the books, the balance sheet is expanded in the following manner:

<i>Assets</i>		<i>Liabilities</i>	
Cash in vault	692,800	Demand deposits	1,080,500
Reserve with federal reserve bank	280,000	Time deposits	400,000
Balances with other banks	100,000	U.S. government deposits	200,000
U.S. government obligations	200,000	Balances of other banks	60,000
State, county, and municipal securities	100,000	Certified checks, cashiers' checks, etc.	100,000
Other bonds and securities *	221,000	Other liabilities	4,500
Loans and discounts	650,000	Capital stock	500,000
Overdrafts	1,200	Surplus	200,000
Bank building and equipment	300,000		
	<u>2,545,000</u>		<u>2,545,000</u>

* Including stock of the federal reserve bank.

Reserve Transactions

Assuming that the First National Bank is located in a "reserve city," we must take note of the fact that its reserve balance with the federal reserve bank has become deficient as a result of its loan and investment transactions. A bank so located, if a member of the Federal Reserve System, must at the present time maintain a reserve equal to 20 per cent of its demand deposits and an additional reserve equal to 6 per cent of its time deposits. A calculation of the First National Bank's requirements shows that it needs a reserve balance of \$292,100 while it has an actual balance of only \$280,000.¹

Because a deficiency in reserves makes it subject to penalties, a bank normally takes steps to repair the deficiency as quickly as possible. This may be done by shipping hand-to-hand money to the federal reserve bank, by transferring to it a part of the deficient bank's balance with correspondent banks, or by borrowing from either the reserve bank or correspondent banks.

Although the amount of the First National Bank's cash in vault appears to be excessive, the officers may anticipate losing much of it when the customers to whom it has granted loans and discounts begin to draw against their demand deposits. For purposes of illustration, at any rate, we may assume that they decide to remove the deficiency by borrowing \$24,000 from the federal reserve bank for thirty days. The First National Bank gives the federal reserve bank its own promissory note secured by the pledge of some of its holdings of United States government bonds, and the federal reserve bank, let us say, discounts the note at the rate of 1 per cent per annum. When the reserve account of the First National Bank has been credited with the proceeds of the advance, its balance sheet is changed as follows:

<i>Assets</i>		<i>Liabilities</i>	
Reserve with federal reserve bank	303,980	Bills payable	24,000
Other assets *	20		

* Prepaid interest.

¹ For the method of calculation, see below, pp. 216-217.

As the bank retains title to the government bonds pledged as security for the advance, the bond investment account is not affected by the transaction.

Miscellaneous Transactions

1) The city treasurer to whom the bank issued a cashier's check for \$100,000 in the purchase of city bonds brings the check to the bank for deposit. This transaction merely removes the liability for outstanding cashiers' checks and creates a demand deposit to the credit of the city government, as follows:

<i>Assets</i>	<i>Liabilities</i>
	Deposits of state, county, and municipal governments 100,000
	Certified checks, cashiers' checks, etc. —

2) Several demand depositors bring to the bank their personal checks amounting to \$20,000 to have them certified. Because by its certification the bank guarantees the availability of funds to meet the checks when they are presented by the payees, it immediately removes \$20,000 from the demand deposit accounts and places an equal sum in the account for certified checks, as follows:

<i>Assets</i>	<i>Liabilities</i>
	Demand deposits 1,060,500
	Certified checks, cashiers' checks, etc. 20,000

3) The bank sells to a customer a cash letter of credit of \$5,000 by which it authorizes him to draw drafts or checks against it in that amount. Payment is made by the customer in hand-to-hand money. The affected accounts (without regard to the commissions which might be charged) appear as follows:

<i>Assets</i>	<i>Liabilities</i>
Cash in vault 697,800	Certified checks, cashiers' checks, etc. 25,000

4) A customer asks the bank to issue a commercial letter of credit authorizing a foreign exporter of goods to draw a draft against the bank for \$10,000 payable sixty days from the date of presentation. The customer signs a contract agreeing to pay \$10,000 plus commissions to the bank before the maturity of the draft (acceptance). Although the issuance of the letter of credit creates only a contingent liability on the part of the bank and gives it only a contingent claim against the customer, the existence of these

contingent items may be noted in the balance sheet in the following manner:

<i>Assets</i>		<i>Liabilities</i>	
Customers' liability on account of letters of credit	10,000	Letters of credit issued	10,000

When the foreign exporter draws the draft and, through the agency of other banking institutions, presents it to the First National Bank for acceptance, the act of accepting converts the contingent liability into a full-fledged promise to pay and makes the contingent asset a full-fledged claim against the customer. This new state of affairs occasions the following changes in the balance sheet:

<i>Assets</i>		<i>Liabilities</i>	
Customers' liability on account of acceptances	10,000	Acceptances outstanding	10,000
Customers' liability on account of letters of credit	—	Letters of credit issued	—

After all the foregoing miscellaneous transactions have been recorded upon the books, the complete balance sheet of the First National Bank appears as follows:

<i>Assets</i>		<i>Liabilities</i>	
Cash in vault	697,800	Demand deposits	1,060,500
Reserve with federal reserve bank	303,980	Time deposits	400,000
Balances with other banks	100,000	U.S. government deposits	200,000
U.S. government obligations	200,000	Deposits of state, county, and municipal governments	100,000
State, county, and municipal securities	100,000	Balances of other banks	60,000
Other bonds and securities	221,000	Certified checks, cashiers' checks, etc.	25,000
Loans and discounts	650,000	Bills payable	24,000
Overdrafts	1,200	Acceptances outstanding	10,000
Customers' liability on account of acceptances	10,000	Other liabilities	4,500
Bank building and equipment	300,000	Capital stock	500,000
Other assets	20	Surplus	200,000
	<u>2,584,000</u>		<u>2,584,000</u>

Income and Expense Transactions

At the same time that the accountants of the First National Bank keep records of changes in the bank's assets and liabilities resulting from the various kinds of transactions which have been illustrated, they also maintain records of the bank's income and expenses. To avoid confusion, we have made only occasional references to income and expenses in the foregoing

discussion, but, in concluding this chapter, we may well summarize the effects of income and expense transactions upon the bank's balance sheet.

During any period—let us say, a month—as income the bank receives interest upon its loans and discounts and upon its investments, fees or charges for the handling of deposit accounts and for other services, commissions for the issuance of letters of credit and other instruments, and miscellaneous earnings from other sources. Some of this income is received in the form of hand-to-hand money to be added to the bank's vault cash; other portions are reflected by reductions in deposit accounts, as when depositors pay service charges; and still other portions may increase other assets or reduce other liabilities. Likewise, the bank makes payments for employees' and officers' salaries, for supplies, for light and heat, for interest upon its own obligations, for repairs, for taxes, and for other expenses. Many such expenses are met by payments of hand-to-hand money which reduce the bank's vault cash; some result in an increase in liabilities such as the liability for outstanding cashiers' checks; and the remainder may be reflected by reductions of other assets and the increase of other liabilities.

The bank's accountants, furthermore, consider certain income as having been earned though no payment has been received, and certain expenses as having been incurred though no payment has been made. Thus interest accrued during the month upon the loans and investments of the bank is regarded as a part of its income, and the total of accrued interest receivable is placed in the balance sheet as an asset. Service charges which have been assessed and for which services have been performed are treated in the same way, though payment from the bank's customers has not yet been received. In a similar way, though many of the bank's expenses for the month may remain unpaid, they are included as costs of operation for the month, and the total of unpaid expenses is listed as a liability in the balance sheet. Thus, at the end of the month, the bank might owe a few days' salary to officers and employees, a portion of certain taxes which are paid only annually, a portion of interest on time deposits ordinarily payable only semiannually, and unpaid bills for supplies purchased and for services received, such as telephone and light. One cost of operation, depreciation of the bank's building and equipment, does not become an obligation to pay at any time; rather, it represents a reduction in the value of those assets.

Again, some income entered on the books during the month may not have been earned by the end of the month. In our illustration, the bank deducted \$4,500 on the discounts it granted, but, according to our assumptions, only \$1,500 of this amount was earned during the month. The remaining \$3,000 could not reasonably be included as a portion of the month's income; and, indeed, it must be listed as a liability since the bank would have to repay it if the borrowers met their obligations two months (on the average) before maturity. On the other hand, some of the expenses paid during the month may not actually be costs of operation for that month. A

large quantity of office supplies may have been bought, but most of it may still be on hand at the end of the month. Only the cost of the portion actually used should be regarded as an expense for the period, and the remainder must be placed in the balance sheet as an asset.

Keeping in mind the foregoing considerations with respect to income and expenses, we may conclude our illustrations of banking transactions by selecting some arbitrary figures for the income and expenses of the First National Bank of Utopia. Let us assume that the total income actually earned in the first month amounted to \$6,000, and that the total costs of operations, including depreciation of the building and equipment of \$800, aggregated \$4,500. The difference between these totals, amounting to \$1,500, represents the bank's profits on operations and is to be placed in the balance sheet as "undivided profits." Second, let us assume that unused supplies, interest earned but not yet received, and other miscellaneous assets amounted to \$2,000 at the end of the month, and that interest received but not yet earned, accrued expenses for interest, pay roll, taxes, and the like, and other miscellaneous liabilities amounted to \$3,900. And, finally, let us assume that all expense and income transactions resulted in a net reduction of vault cash amounting to \$280. The incorporation of these figures into the balance sheet of the First National Bank would produce the following changes:

Cash in vault	reduced	\$ 280
Bank building and equipment	reduced	800
Other assets	increased	- 1,980
Other liabilities	reduced	600
Undivided profits	increased	1,500

The end-of-the-month statement would then appear as follows:

<i>Assets</i>		<i>Liabilities</i>	
Cash in vault	697,520	Demand deposits	1,060,500
Reserve with federal reserve bank	303,980	Time deposits	400,000
Balances with other banks	100,000	U.S. government deposits	200,000
U.S. government obligations	200,000	Deposits of state, county, and municipal governments	100,000
State, county, and municipal securities	100,000	Balances of other banks	60,000
Other bonds and securities	221,000	Certified checks, cashiers' checks, etc.	25,000
Loans and discounts	650,000	Bills payable	24,000
Overdrafts	1,200	Acceptances outstanding	10,000
Customers' liability on account of acceptances	10,000	Other liabilities	3,900
Bank building and equipment	299,200	Capital stock	500,000
Other assets	2,000	Surplus	200,000
	<u>2,584,900</u>	Undivided profits	1,500
			<u>2,584,900</u>

Chapter 14

PRIMARY RESERVES

The Nature of Primary Reserves

The primary reserves are those assets of a commercial bank which are already in the form of hand-to-hand money or which can be converted into it on demand. Three accounts which appear in a bank's balance sheet, as we have seen, constitute the primary reserves: cash in vault, balances with correspondent banks, and reserve with the federal reserve bank. The first of these consists of paper money and subsidiary coins on hand at the bank; and the other two represent deposits with other banking institutions—deposits which may be withdrawn in hand-to-hand money at a moment's notice. The distribution of the reserves of member banks of the Federal Reserve System among the three accounts at a recent date is shown in Table 16 on the following page.

IMPORTANCE OF PRIMARY RESERVES

The primary reserves are important in two respects. First, they represent the primary line of defense of the bank in meeting the withdrawals of depositors. Holders of demand deposit accounts—and of time deposit accounts as well—feel that they have the right to call for hand-to-hand money at any time; and if the bank's primary reserves are adequate, it can meet such calls without embarrassment. The primary reserves, therefore, are a "guarantor of solvency" for the commercial banking institution. In the second place, the primary reserves indicate to what extent the bank may make new loans and purchase additional investment securities. If its total primary reserves are sufficient only to fulfill the requirements of the law and to satisfy the current needs of its depositors, it cannot safely make new loans and investments, for it may confidently expect the proceeds of the loans and investments to be drawn out promptly. On the other hand, if it has primary reserves over and above the amounts required by law or by independent considerations of its own safety, it may freely lend or invest the excess.

Although the maintenance of reserves as a means of insuring the safety

TABLE 16
DISTRIBUTION OF MEMBER BANK PRIMARY RESERVES, JUNE 29, 1946
(Dollar amounts in millions)

Class of banks	Total reserves	Cash in vault		Reserve with federal reserve banks		Demand balances with domestic banks		Reserve ratio ^a
		Amount	Per cent	Amount	Per cent	Amount	Per cent	
All member banks	\$22,876	\$1,141	5.0	\$16,001	69.9	\$5,734	25.1	18.5
All national banks	15,558	788	5.1	10,431	67.0	4,339	27.9	19.2
All state member banks	7,318	353	4.8	5,570	76.1	1,395	19.1	17.2
Central reserve city banks of New York ..	4,405	85	1.9	4,255	96.6	65	1.5	15.8
Central reserve city banks of Chicago ..	1,056	25	2.4	870	82.4	161	15.2	17.2
Reserve city banks	8,573	399	4.6	6,332	73.9	1,842	21.5	18.6
Country banks	8,840	631	7.1	4,543	51.4	3,666	41.5	20.5

^a Ratio of total primary reserves to total liabilities other than capital accounts.

Source: Derived from *Federal Reserve Bulletin*, October, 1946, p. 1198.

of banking institutions would seem, at first glance, to represent their outstanding significance, as a matter of fact their role in determining the extent to which banks may expand their loans and investments—and, therefore, the volume of demand deposits—has come in recent years to be the predominant consideration. Only this fact can explain the extraordinarily high legal reserve requirements which have prevailed in the United States since 1936. As the size of the primary reserves of the individual commercial bank limits its capacity to lend and to invest, so also the volume of primary reserves throughout the commercial banking system limits the over-all expansion of commercial bank loans and investments. And the capacity of the authorities of the central bank, by various modes of operation, to regulate the total volume of primary reserves places in their hands a tremendous power of “monetary policy” or “credit control.” In the disturbed times since the close of the First World War—a period in which the responsibility of central banks as “monetary managers” has come generally to be recognized—the control of bank demand deposit expansion in accordance with uniform national policies has steadily grown in importance. At the same time, the capacity of central banks to provide, in times of stress, large quantities of primary reserves to safeguard the solvency of the banking system has lessened the significance of the reserves which the individual bank holds for the purpose of insuring its own safety.

RESERVE RATIO

The strength of a bank's primary reserves is not indicated by their dollar volume alone, but by their dollar volume in relation to all the liabilities other than the capital accounts. We learn little about the strength of a bank if we know that it has \$1,000,000 or \$10,000,000 of primary reserves. If a bank with reserves of \$1,000,000 has “outside” liabilities of \$5,000,000, its position is relatively strong; but if the liabilities amount to \$25,000,000, its position is extremely weak. To determine the soundness of a bank's reserve position, therefore, a *reserve ratio* is calculated. Thus, employing the figures just cited, the ratio may be 20 per cent, or five dollars of liabilities for each dollar of primary reserves; or it may be 4 per cent, that is, 25 to 1.¹

FACTORS WHICH GOVERN THE SIZE OF RESERVES

Standards for the determination of the proper size of a bank's primary reserves depend upon the requirements of the banking laws and upon the scope of the bank's operations. (1) In the United States for many decades, commercial banks have been required by law to keep specified minimum reserves, and, apart from all other considerations, the legal requirements

¹ The reserve ratios of all the member banks of the Federal Reserve System and of the various classes of members at the end of June, 1946, are shown in the last column of Table 16. It is noteworthy that the largest ratios were those of the country banks while the smallest were those of the central reserve city banks.

first of all must be satisfied. We shall discuss legal reserve requirements in some detail later in this chapter.

The character of a bank's business is also important in determining the amount of primary reserves that it should keep. (2) An outstanding consideration is the distinction between short-term and long-term deposits. This classification is superior to the usual one by which demand and time deposits are merely distinguished, for some demand deposit balances may be maintained for relatively long periods, while some time deposit accounts may be exceedingly active. (3) The number of depositors and the size of the average deposit should also receive consideration. A bank which has thousands of depositors with small balances may feel reasonably confident that daily withdrawals will be closely balanced by new deposits, so that the net payments to be made at any time will not be large. On the other hand, a bank which has only a few very large accounts will normally have to keep relatively large reserves to meet sizable withdrawals from one or more of the accounts. (4) The seasonality of the business of the bank's customers is also to be considered. Banks which serve agricultural communities, for example, must maintain large primary reserves in the spring and fall during the planting and harvesting seasons, for almost all depositors may be expected to make heavy withdrawals. (5) A final factor is the possibility of rapidly replenishing the reserves should they be materially reduced through withdrawals. If the bank possesses a large volume of securities which can be quickly converted into primary reserves, it may depend upon their sale in time of need. Or if it is possible to borrow readily from other banks, a bank may keep its primary reserves at a reasonably low level and expect to meet extraordinary withdrawals by borrowing elsewhere.

Legal Reserve Requirements in the United States

The excesses committed by "wildcat" banks before the Civil War, occasioning heavy losses to bank customers and note holders, inevitably led to the enforcement of specific reserve requirements in both state and national laws. Abroad, banks have usually been permitted to decide for themselves what reserves to maintain, or, if legal reserves are designated, they are generally small in size. Chiefly accounting for this difference in governmental policy is the fact that the United States is served by thousands of independent unit banks, many of which are weakly capitalized and inefficiently managed, while in most foreign countries the commercial banking operations are restricted to a few national branch banking systems.

Legal reserves represent the minimum amount which banks must maintain, and they must usually be kept in a special manner. Federal reserve member banks, for example, must keep their entire legal reserves as deposits with their district reserve banks. Because of their need of vault cash to handle daily transactions, they must obviously maintain total reserves

in excess of the stipulated legal minimum. Some of the state banking laws, however, permit state-chartered banks to include both vault cash and deposits with correspondent banks in meeting the legal reserve requirements.

RESERVES OF THE NATIONAL BANKING SYSTEM

National Bank Reserves before 1913.—The National Bank Act, adopted in 1863, required all banks having national charters to keep relatively large reserves. In the course of time, New York, Chicago, and St. Louis were designated central reserve cities, forty-nine other cities were termed reserve cities, and all other localities were regarded as "country districts." Banks located in the central reserve cities were required to keep within their own vaults a 25 per cent reserve against deposits. The requirement for banks located in reserve cities was also 25 per cent, but as much as half could be redeposited with banks located in central reserve cities. Finally, country banks were required to keep a 15 per cent reserve, of which as much as three fifths could be redeposited with banks situated in reserve and central reserve cities.

The National Bank Act did not distinguish between demand and time deposits; hence the percentages mentioned above applied to all deposits. A bank whose reserves were deficient was forbidden to make new loans and to pay dividends; and the Comptroller of the Currency was empowered to liquidate any bank which failed to correct deficiencies in its reserves within thirty days after a warning had been given.

Defective Reserve Arrangements.—Among the important reasons for the establishment of the Federal Reserve System were the defects in reserve arrangements in the pre-1913 banking system for which the foregoing requirements were largely responsible. These defects may be summarized as follows:

- 1) The surplus reserves of the banking system, not needed for vault cash, were usually redeposited in New York City, the chief money center of the country; but the panic of 1907 demonstrated the inadequacy of the New York banks as reserve depositaries. During the panic, as banks throughout the country were subjected to "runs" by excited depositors, they naturally called upon their New York correspondents to supply them with hand-to-hand money to replenish their vault cash. But the New York banks had most of their available funds invested in loans and securities which they could not liquidate quickly, with the result that, instead of meeting the demands of the banks in the interior, they were forced to suspend payment. The New York banks, as profit-seeking institutions, felt no particular responsibility for the safety of the banking system. Not only did they customarily pay interest upon bank balances kept with them, but they also usually bore all expenses of check clearing for their correspondents; and to meet these costs, they felt perfectly justified in keeping their assets invested as fully as possible.

2) The panic of 1907 showed that the reserve requirements were not sufficiently elastic to meet critical situations. Too much attention was paid to the stipulations of the law, and so long as they were fulfilled, bankers seemed to feel that they had done their duty. Thus many banks suspended payment with full reserves available; in a word, they failed to use the reserves for the very purpose for which they were intended. The penalties assessable for deficient reserves apparently made the suspension of payments preferable to the use of the reserves in meeting depositors' demands.

3) A further defect of reserve management in the national banking system was that, despite the concentration in New York City, there was also a scattering of reserves throughout the country in the vaults of the individual banks. The requirement of the law that banks located in reserve cities and in country districts hold a large portion of their reserves in their own vaults meant that such reserves could not be marshaled to meet emergencies in various parts of the country. And scattered reserves were of little advantage even to the banks which held them, since the attitude prevailed that they should not be paid out after the minimum required by law was reached.

4) Although the provisions of banking law in respect to the size of reserves appeared to be stringent, reserves were often of a fictitious character. "Pyramiding" was common. An extreme example of pyramiding may be described as follows: A country bank with deposits of \$100,000 would keep on hand \$6,000 as vault reserve and would deposit the remaining \$9,000 required in a reserve city bank. Against the \$9,000 deposit, the reserve city bank would keep \$1,125 of hand-to-hand money in its vaults, and would deposit \$1,125 in a central reserve city bank. The latter would be required to keep a reserve of 25 per cent of \$1,125 or \$281.25. Thus the total reserves held against the \$100,000 of deposits would not be the 15 per cent stipulated in the law, but \$6,000 plus \$1,125 plus \$281.25, or a total of \$7,406.25, equivalent to approximately 7.4 per cent.

Another fictitious element was introduced by the practice of banks in counting immediately as a portion of their reserves deposited checks drawn upon other banks and sent to them for collection—commonly called the "float." As the clearing of out-of-town checks was a slower process before 1913 than at the present time, the result was that "cash items in process of collection" were often included in the primary reserves of banks many days before payment was received. If Bank A were sending \$10,000 of checks to Bank B for payment, and Bank B were sending \$10,000 to Bank A, in theory \$20,000 of primary reserves existed, but in fact there were no such reserves.

5) Another defect in the reserve requirements which applied to national banks was the failure to distinguish between demand and time deposits, or, alternatively, between short-term and long-term deposits. Because of this oversight, national banks found it difficult to compete with state banks in receiving savings deposits. A true savings deposit, which is likely to remain

undiminished for a long period of time, scarcely requires a reserve of 25 per cent or even of 15 per cent. In many instances, officials of national banks organized separate state banks for the sole purpose of sharing in the savings deposit business.

RESERVES IN THE FEDERAL RESERVE SYSTEM

Reserve Requirements in the Federal Reserve Act.—Some of the foregoing defects in the reserve arrangements were removed by the Federal Reserve Act, as adopted in December, 1913. In the first place, reserves required of member banks were generally reduced, and demand and time deposits were separately classified. For demand deposits, member banks located in central reserve cities were required to keep a reserve of 18 per cent; those located in reserve cities, 15 per cent; and country banks, 12 per cent. The uniform requirement for time deposits of all banks was fixed at 5 per cent. The reserves held for demand deposits could be apportioned at various ratios between hand-to-hand money held in the banks' own vaults, deposits with the federal reserve banks, and deposits with banks situated in reserve and central reserve cities. During a three-year "transition period," the reserves maintained with the federal reserve banks were to be gradually increased.

Amendment of 1917.—This rather confusing arrangement was swept aside by an amendment to the Federal Reserve Act adopted on June 21, 1917, which provided that all legal reserves were to be kept on deposit at the federal reserve banks; hence vault cash as well as deposits with correspondent banks could no longer be included in the determination of required reserves. This innovation did not create a serious hardship for the member banks because, at the same time, reserve requirements were further reduced. For demand deposits, member banks located in central reserve cities were required to keep 13 per cent on reserve; banks located in reserve cities, 10 per cent; and country banks, 7 per cent. Reserves for time deposits were placed at 3 per cent for all member banks.

Reserves in the Banking Act of 1935.—Until 1936, the legal reserves required of all member banks of the Federal Reserve System remained at the levels fixed by the 1917 amendment. The "Inflation Amendment" of the Agricultural Adjustment Act of 1933 authorized the Federal Reserve Board, by a vote of at least five of its members and with the approval of the President, to increase or decrease reserve requirements during a period of emergency, but the power was not exercised. The Banking Act of 1935, however, placed in the hands of the new Board of Governors a permanent power to change reserve requirements, subject to the limitation that legal reserves should not be reduced below the ratios set in the 1917 amendment, or raised beyond a doubling of the 1917 ratios. At least four members of the board must vote affirmatively to initiate changes.

The authority granted in the Banking Act of 1935 has been used on

several occasions by the Board of Governors in efforts to control the expansion of bank credit. As of August 16, 1936, required reserves were uniformly raised 50 per cent, making them $19\frac{1}{2}$ per cent, 15 per cent, and $10\frac{1}{2}$ per cent for demand deposits of central reserve city banks, reserve city banks, and country banks respectively, and $4\frac{1}{2}$ per cent for all time deposits. Other changes since 1936 are recorded in Table 17. An examination of the reasons

TABLE 17
MEMBER BANK RESERVE REQUIREMENTS SINCE JUNE 21, 1917
(Per cent of deposits)

Period	Demand deposits			Time deposits (all member banks)
	Central reserve city banks	Reserve city banks	Country banks	
June 21, 1917—Aug. 15, 1936.....	13	10	7	3
Aug. 16, 1936—Feb. 28, 1937.....	$19\frac{1}{2}$	15	$10\frac{1}{2}$	$4\frac{1}{2}$
Mar. 1, 1937—Apr. 30, 1937.....	$22\frac{3}{4}$	$17\frac{1}{2}$	$12\frac{1}{4}$	$5\frac{1}{4}$
May 1, 1937—Apr. 15, 1938.....	26	20	14	6
Apr. 16, 1938—Oct. 31, 1941.....	$22\frac{3}{4}$	$17\frac{1}{2}$	12	5
Nov. 1, 1941—Aug. 19, 1942.....	26	20	14	6
Aug. 20, 1942—Sept. 13, 1942.....	24	20	14	6
Sept. 14, 1942—Oct. 2, 1942.....	22	20	14	6
Effective Oct. 3, 1942.....	20	20	14	6

Source: Federal Reserve Bulletin.

for so many changes in reserve requirements since 1936 must be deferred until we have the occasion to study federal reserve monetary policy in all its aspects.²

Determination of Required Reserves.—The “demand deposits” upon which the legal reserves of member banks of the Federal Reserve System are based include all demand liabilities reduced by the sum of certain assets which the banks are in a position to collect upon demand. In its calculation of demand deposits, a member bank first finds the sum of the following items: all deposits of individuals, partnerships, corporations, and governmental bodies³ payable on demand or upon notice of less than thirty days; similar deposits of other domestic banking institutions and of foreign banks; certified checks and cashiers’ checks outstanding; letters of credit and travelers’ checks sold for cash; and amounts due the federal reserve bank on account of collections. From the total of the foregoing items, the bank is

² See below, pp. 445-447.

³ The act of April 13, 1943, exempted the “war loan accounts” of member banks from reserve requirements “until six months after the cessation of hostilities in the present war.” The “war loan accounts” represented deposits of the federal government arising from the sale of its securities to the member banks and from the sale of government securities by the member banks to the general public.

permitted to deduct the sum of the following: deposits with other incorporated domestic banks (other than the federal reserve banks) subject to withdrawal upon demand; cash items in the process of collection; and cash items on hand which will be presented for payment or forwarded for collection within one day.

Time deposits are simply described as all those which are payable in not less than thirty days or which are subject to notice of thirty days or more for withdrawal.

Reports of Deposits and Reserves.—Member banks which are located in central reserve and reserve cities must make weekly ⁴ reports of their average daily demand and time deposits and of their required reserves; and country banks must make reports twice a month. A bank may satisfy the reserve requirements if it can show that *on the average* during these periods it has had sufficient reserves. Thus it is possible for a bank to have reserve deficiencies on some days, so long as they are balanced by excess reserves on other days. A reserve city bank having deposits of \$100,000,000 on three days and of \$104,000,000 on three days would meet the requirements if it had a reserve of \$18,400,000 in the first half of the week and of \$22,400,000 in the second half.⁵

Penalties for Deficient Reserves.—A member bank which fails to maintain its reserves at the proper level makes itself subject to certain penalties. The usual penalty is a fine or tax calculated on the amount of the average daily deficiency at a rate per annum 2 points above the federal reserve rediscount rate on ninety-day commercial paper; but a larger penalty may be assessed at the discretion of the Board of Governors. If a bank continues to be negligent in meeting reserve requirements, it may be required to forfeit its charter if a national institution, or its membership in the Federal Reserve System if a state member bank.⁶

By borrowing reserve balances from one another it is sometimes possible for banks to avoid the penalties assessed on account of deficient reserves. Loans of reserve balances in the "federal funds market," as it is called, are usually made for one day. Bank A, which has excess reserves, may be willing to lend them to Bank B for the interest to be earned. Bank A would give a draft on its reserve account in exchange for a cashier's check issued by Bank B for the same amount plus interest. Bank A's draft on the reserve bank would be cleared at once, and a portion of its reserve balance would thereby be added to Bank B's account. On the following day, the cashier's check issued by Bank B would be sent through the clearinghouse for pay-

⁴ From 1928 until 1942, member banks in operation in cities in which reserve banks or their branches are located were required to make reports of their deposits and reserves twice a week, but by a ruling of the Board of Governors effective February 28, 1942, a single weekly report was authorized.

⁵ Assuming a requirement of 20 per cent.

⁶ According to the provisions of the Federal Reserve Act as originally adopted, a member bank was forbidden to make new loans and to pay dividends while having deficient reserves, but these restrictions were repealed by the act of July 7, 1942.

ment. When borrowing banks remain deficient, the process may be repeated daily.

Authority of the Board of Governors.—Regulatory authority respecting the reserve requirements which apply to member banks in the Federal Reserve System is largely concentrated in the hands of the Board of Governors. We have already mentioned the fact that the board may change the requirements within certain limits and assess penalties for deficiencies. In the exercise of these powers, it should be noted, the board may vary the requirements for one classification of banks while leaving those for others unaltered, or it may order unequal changes among the three classes. It may, for example, fix a uniform ratio of 14 per cent for demand deposits of all member banks; or it may increase the required reserves of country banks while reducing those of central reserve and reserve city banks.⁷

Similar to the foregoing in some respects is the board's authority to change the designation of cities and other districts. At the present time, New York and Chicago alone are central reserve cities; approximately sixty other cities are classified as reserve cities; and all other cities and villages are "country districts." In regard to this classification, it is important to note that a bank which has its head office *or any branch office* in a central reserve city is now classified as a central reserve city bank; and that a bank which has its head office *or any branch office* in a reserve city, but neither head office nor branch in a central reserve city, is classified as a reserve city bank.⁸ From time to time the board has changed designations in individual instances, but it has never undertaken a wholesale reorganization of the three classes. The board, by the affirmative vote of five of its members may permit banks having head offices or branches located in the outlying parts of reserve cities to maintain only such reserves as are required of banks located in country districts; and it may permit banks having head offices or branches located in the outlying parts of central reserve cities to maintain reserves as if they were located in reserve cities or in country districts. Such concessions have commonly been made. In some areas within the corporate limits of New York City, for example, member banks keep only those reserves required of reserve city banks, and in other areas, only those required of country banks.

The Federal Reserve Act, furthermore, gives the board the sweeping power to suspend for thirty days any and all reserve requirements. As a suspension may be continued for an indefinite number of additional fifteen-day periods, the power appears to be absolute for any period of time.

⁷ By the terms of the Banking Act of August 23, 1935, the board could not change the requirements for central reserve city banks without changing those for reserve city banks in equal proportion, although it could treat country banks as a separate class subject to independent changes. However, separate treatment for banks located in central reserve cities and for those located in reserve cities was authorized by the act of July 7, 1942.

⁸ Reference to the location of branches in fixing the location of member banks themselves was provided for in an amendment to the board's regulations effective August 1, 1945. See *Federal Reserve Bulletin*, July, 1945, p. 645.

Evaluation of Present Reserve Arrangements

ADVANTAGES

The foregoing survey of the reserve requirements of the national banking system before 1913 and of the Federal Reserve System thereafter indicates some of the improvements which have been brought about by the Federal Reserve Act and its amendments. In the first place, most of the banking reserves of the country are now concentrated at the reserve banks. Some diffusion of reserves continues in the form of vault cash and deposits with correspondent banks, but this is necessary in the interest of safety and convenience. The concentration of reserves is advantageous in that they can be used at any time to meet special needs in any part of the country as well as national emergencies. As the reserve banks are not profit-seeking institutions in the ordinary sense of the term, they feel no strong compulsion to keep their resources constantly invested, as was the case with the banks of New York City when they served as the principal reserve depositories of the country.

Fictitious elements in the reserves have largely been eliminated. No longer is it generally possible to include cash items in the process of collection—the “float”—as a part of the legal reserves. Some pyramiding remains, however, where state banks not members of the Federal Reserve System keep a portion of their required reserves with correspondent banks.

CRITICISM

Despite the improvements brought about by the adoption of the Federal Reserve Act and its amendments, several of the present reserve arrangements are still criticized as being unreasonable or inequitable. Most of the criticism comes from those who regard the maintenance of primary reserves simply as a means of safeguarding the solvency of the commercial banks. If, however, the significance of reserve requirements as a device to limit the expansibility of demand deposits through bank lending and investment is recognized—a matter discussed earlier in this chapter—the criticism would appear to be largely invalid. In other words, the arrangements criticized as being defective turn out, on the whole, to be reasonable when emphasis is placed upon the use of legal requirements as a means of bank credit control.

1) Some critics object to the fact that the required reserves are available to the member banks only under penalty. The reserves are apparently designed as a first line of defense in case of very large withdrawals of deposits; but as soon as the banks begin to call for their reserves, they become subject to penalties for deficiencies. The weight of this criticism, however, is to some extent obviated by the fact that the member banks may readily borrow from the reserve banks in order to keep their reserves at a proper level.

2) A second arrangement subject to criticism is that member banks are

not permitted to include their vault cash in the calculation of required reserves. In the early days of the Federal Reserve System, it was thought desirable to keep a large portion of the reserves of member banks at the federal reserve banks so that the latter would have sufficient resources with which to operate; at present, however, the resources of the federal reserve banks are so large that they are not dependent upon the reserve balances of member banks. Thus, it is said, the law might well be amended to permit member banks to count vault cash, at least to a limited extent, as part of their legal reserves.

3) The setting of varying reserve requirements according to the location of banks is now thought by many to be antiquated. At a time when central reserve and reserve city banks were the principal depositories of hundreds of country banks, large reserves were probably desirable; but such a situation no longer obtains. Indeed, because banks located in central reserve cities and in reserve cities have easier access to the federal reserve banks to replenish reserves than have country banks, the former, it is claimed, should have smaller requirements than the latter.

4) Finally, the critics claim that the distinction between demand and time deposits no longer bears much validity as a basis for separate reserve requirements. It is quite arbitrary to require a bank located in a reserve city to keep a reserve of 20 per cent against its demand deposits, and one of only 6 per cent against its time deposits. Some of the demand deposits may be looked upon as long term in character if their owners constantly maintain large balances. On the other hand, many time deposits may have a rapid turnover, and this is especially true at the present time when banks are forbidden to pay interest on demand deposits and when various kinds of service charges are assessed against demand accounts. Many people who held demand deposits as long as interest was paid upon them, and as long as the accounts could be used liberally without service charges, have now switched to time accounts, but they use the time deposits for current rather than for long-term purposes.

Respecting this criticism, it may be noted that a special committee appointed by the Federal Reserve Board in 1929 to study the question of bank reserves suggested in its report that all member banks be required to keep a reserve of 5 per cent against all deposits, both demand and time, plus 50 per cent of the average daily withdrawals from all accounts.⁹ In this way, the size of reserves would depend upon the activity or turnover of the deposit accounts, whatever their designation might be.

⁹The report was published as a supplement to the December, 1931, issue of the *Federal Reserve Bulletin*.

Chapter 15

THE EXPANSION OF DEMAND DEPOSITS

The Process of Expansion

The primary reserves of a commercial bank, besides serving as a guarantor of its solvency, indicate the extent to which it may grant additional loans and purchase additional investment securities. When a bank has reserves over and above the amount necessary to satisfy legal requirements and to safeguard its solvency, the excess may be loaned or invested with reasonable assurance that the safety of the bank is not being jeopardized. If loans and investments in an amount greater than the excess reserves are made, there is a strong probability that not only the excess reserves but also a portion of the needed reserves will be drained off. We may, then, set it down as a fundamental proposition that, at any given time, the individual bank is able to lend or invest only the amount of its excess reserves.

The capacity of a bank to lend or to invest is thus limited to the total primary reserves less the amount required by law and such additional amounts as are considered necessary for safety and convenience. In other words, the officers of a commercial bank must first satisfy the legal reserve requirements; then they must set aside additional portions of the primary reserves for vault purposes and for deposit with correspondent banks; and if they then have any primary reserves remaining, these they are free to lend or to invest.

INDIVIDUAL BANKS AND THE SYSTEM OF BANKS

The ideas expressed in the foregoing paragraphs are in accord with the beliefs and practices of the individual banker. The banker is often critical of theorists who say that commercial banks "create" demand deposits—that they are manufacturers of money. For the individual banker feels that he always lends or invests something which he already has on hand or on deposit with correspondent banks or with the district federal reserve bank. He knows, for example, that he is quite free to open new demand deposit accounts through his lending operations, because he has the reserves to meet the checks which are drawn upon them.

If the viewpoint of the individual banker is accurate, what validity is there in the statement that commercial banks are creators of money in the form of demand deposits? The banker appears to be perfectly correct in his belief that, individually, he is not creating credit when he makes a loan; but it remains true, nevertheless, *that the system of commercial banks can do what the individual banker cannot do*. This paradox will be explained by means of extended illustrations.

For the moment, let us say that when the individual banker grants loans and discounts in an amount equal to his excess reserves, the proceeds are likely to be deposited in other banks where they again become primary reserves. This process can be repeated theoretically to infinity, and, as our illustrations will show, there is a capacity in the banking system to expand demand deposits on the basis of reserves as many times as the reserve ratio is contained in unity or 100 per cent. The term *reserve ratio* is used here as the ratio of all necessary reserves—both those required by law and those maintained voluntarily—to demand deposits. If the reserve ratio is 20 per cent, excess reserves may be expanded five times; if 10 per cent, they may be expanded ten times; if 12½ per cent, eight times; and so on.

ILLUSTRATION OF EXPANSION

Below are presented portions of the balance sheets of four banks to be used as the basis of our illustrations of the expansion of demand deposits. Cash in vault, deposits with correspondent banks, and reserves with the federal reserve banks have been combined under the single title *primary reserves*. At the outset, it may be mentioned that there is no exact relationship between the amount of loans and discounts and the volume of demand deposits, but totals for the former are shown to clarify the analysis.

<i>Bank A</i>			
Primary reserves	250,000	Demand deposits	800,000
Loans and discounts	500,000		
<i>Bank B</i>			
Primary reserves	160,000	Demand deposits	800,000
Loans and discounts	500,000		
<i>Bank C</i>			
Primary reserves	160,000	Demand deposits	800,000
Loans and discounts	500,000		
<i>Bank D</i>			
Primary reserves	160,000	Demand deposits	800,000
Loans and discounts	500,000		

We shall assume that each of these banks maintains, as a matter of fixed policy, a 20 per cent reserve against demand deposits. It is apparent, then, that Banks B, C, and D have no excess reserves, for the primary reserves of each are exactly equal to 20 per cent of its demand deposits. Bank

A, however, has excess reserves of \$90,000, as it needs only \$160,000 of reserves against its deposits of \$800,000.

Let us say, then, that Bank A, having no reason to keep the excess reserves idle, decides to lend \$90,000 to some of its customers. The loans are made by adding \$90,000 to the customers' deposit accounts, and the pertinent accounts then appear as follows:

<i>Bank A</i>			
Primary reserves	250,000	Demand deposits	890,000
Loans and discounts	590,000		

But as the borrowers do not negotiate the loans for the purpose of allowing them to remain unused in their deposit accounts, we may assume that they draw \$90,000 of checks to meet business expenditures. We may further assume, for the sake of simplicity, that all the checks drawn are received by customers of Bank B, who deposit them in their accounts. Bank B sends the checks for collection to Bank A and the latter makes payment. The balance sheets of the two banks are affected as follows:

<i>Bank A</i>			
Primary reserves	160,000	Demand deposits	800,000
Loans and discounts	590,000		

<i>Bank B</i>			
Primary reserves	250,000	Demand deposits	890,000
Loans and discounts	500,000		

Bank A, in spite of the withdrawal of \$90,000, remains in a safe position because its primary reserves are exactly equal to 20 per cent of its demand deposits. Bank B, however, now has excess reserves: it needs reserves of \$178,000 against demand deposits of \$890,000; hence the excess amounts to \$72,000. Bank B, let us say, lends \$72,000 to customers by increasing their deposit accounts. The pertinent accounts then appear in its balance sheet as follows:

<i>Bank B</i>			
Primary reserves	250,000	Demand deposits	962,000
Loans and discounts	572,000		

Again it is logical to assume that the customers want to make immediate use of the money borrowed, so that they draw checks against their accounts for \$72,000. The payees deposit the checks at Bank C, and the balance sheets of Banks B and C become

<i>Bank B</i>			
Primary reserves	178,000	Demand deposits	890,000
Loans and discounts	572,000		

<i>Bank C</i>			
Primary reserves	232,000	Demand deposits	872,000
Loans and discounts	500,000		

Bank B's primary reserve position is satisfactory as the 20 per cent requirement is fulfilled; but Bank C now has excess reserves of \$57,600 (actual reserves of \$232,000 less required reserves of \$174,400). Bank C, therefore, grants loans of \$57,600, and its balance sheet then appears as follows:

<i>Bank C</i>			
Primary reserves	232,000	Demand deposits	929,600
Loans and discounts	557,600		

The loans are drawn out in full and the checks on Bank C are deposited at Bank D, so that the balance sheets of the two banks appear as follows:

<i>Bank C</i>			
Primary reserves	174,400	Demand deposits	872,000
Loans and discounts	557,600		

<i>Bank D</i>			
Primary reserves	217,600	Demand deposits	857,600
Loans and discounts	500,000		

Bank C's reserves are now equal to 20 per cent of its demand deposits, and it can make no further loans from its present resources; but as Bank D's required reserves amount to \$171,520, and its actual reserves are \$217,600, it is in a position to lend the difference, which amounts to \$46,080. If the loans are granted and the checks are deposited in Bank E, the deposits and primary reserves of that bank will be increased by \$46,080.

Infinite Series of New Deposits.—Let us see what has happened thus far. On the basis of the excess primary reserves of \$90,000 originally held by Bank A, the demand deposits of Bank B were expanded by \$90,000, those of Bank C by \$72,000, those of Bank D by \$57,600, and those of Bank E by \$46,080. Thus by the independent action of these five banks, the original total of \$90,000 of excess reserves was expanded to \$265,680 of demand deposits. Conceivably, the process could be continued with Banks F, G, H, and so on indefinitely.

This unlimited succession of figures for new deposits, in which each amount is equal to 80 per cent of the preceding amount, represents what mathematicians call an infinite geometrical progression. The total of the items constituting such a progression, allowing for our assumptions, would amount to \$450,000. Thus, with a uniform reserve ratio of 20 per cent in force, any excess reserves in the commercial banking system could be expanded to five times their amount in demand deposits—a fact in accordance with our original proposition.

Criticism of the Illustration.—Our illustration has been purposely simplified for reasons of clarity, and, as a result, many objections may be offered. In the first place, we know that the demand for loans at each bank would not always be exactly equal to that bank's excess reserves. If that

were so, excess reserves would quickly become required reserves as new loans were made "all along the line." This objection is not valid, however, as we are merely showing the possibilities of expansion, and not the probabilities.

A second objection to be faced is that all the checks drawn against Bank A are not likely to be deposited in Bank B. Granted. But wherever the checks are deposited, they will provide, not one bank, but many banks with increased primary reserves totaling \$90,000. Some of the checks, in fact, may be redeposited at Bank A itself, but in that event Bank A would discover that its primary reserves had not been drawn down to the extent anticipated. It would therefore be in a position to make new loans in the amount of the excess reserves remaining.

A third objection, stated in terms of our illustration, is that the recipients of the \$90,000 of checks drawn upon Bank A are likely to be just as reluctant to let their deposits lie idle at Bank B as were the drawers of the checks, that is, the borrowers from Bank A. In consequence, Bank B must be prepared to pay out the entire \$90,000—which it could not do, if it persists in lending \$72,000, without having its reserves sadly depleted. This appears to be a potent objection, but it arises because our illustration was oversimplified. If the \$90,000 had been used to buy merchandise from many firms and had been deposited in small amounts in many banks in various parts of the country, as would more likely be the case, the new deposits would immediately assume a stable character—a character in keeping with the "normal growth" of deposits in a period of expanding bank lending. It is true that the many firms with deposits in many banks would draw checks against the \$90,000 of new deposits; but the same firms and others would be making deposits of checks received from people borrowing at other institutions throughout the banking system. In this way, checks drawn against individual banks would likely be offset by other checks deposited with them, so that no single bank need fear a large adverse clearinghouse balance.

EXPANSION BEYOND THE AMOUNT OF EXCESS RESERVES

If all the banks of the system are expanding their loans in an amount beyond their excess reserves, any individual bank is not likely to be endangered should it decide to adopt the same policy. Were all banks to lend to the extent of 125 per cent of their excess reserves, it is probable that none would be dangerously affected, because checks drawn at the various banks against the new deposits would tend to balance each other in the clearing process. More checks would be drawn against each bank, but, in turn, more checks would be coming into the hands of the depositors of each bank. In this way, no bank would likely find itself with an extraordinarily large adverse clearinghouse balance.

The fact, however, remains that the banking system as a whole continues to be restricted by the amount of primary reserves available; in other words,

the loans may be made at a more rapid rate, but new demand deposits cannot be created to a greater extent than five times the excess reserves if the requirement is 20 per cent, ten times if 10 per cent, and so on. And it may be added that the individual banker is not likely to know at what rate other bankers are extending their loans.

To summarize, we may repeat that in general a bank cannot lend more than the amount of its excess reserves, because it must expect checks to be drawn against the full amount of its loans. A banker may believe that some of the checks will be redeposited in his own bank, but there is no assurance that that will happen. If, in our illustration, Bank A had loaned \$120,000 instead of \$90,000, and if the full amount of the loans had been drawn out, the bank would have been left with only \$130,000 of primary reserves—considerably less than the required 20 per cent.

EXPANSION BY MEANS OF BANK INVESTMENTS

Although the foregoing illustration was designed to show the process of demand deposit expansion through the lending operations of the commercial banking system, it is well to emphasize, as was pointed out in Chapter 8, that expansion also takes place as a result of the purchase of investment securities by the banks. One can easily see that if Banks A, B, C, and so on, purchased securities in an amount equal to their excess reserves, the effect upon demand deposits would be identical with that in the illustration. Suppose that Bank A had bought securities worth \$90,000 directly from its customers, giving them credit in their deposit accounts for that amount. If the customers had drawn checks to the full amount and the payees had deposited them in Bank B, that bank would then have had \$72,000 of excess reserves available for lending or investment.

The process of expansion, moreover, does not vary in any essential aspect when banks buy securities in the open market, rather than directly from their own customers. Were Bank A to purchase \$90,000 worth of securities in the open market, it would make payment presumably by means of a bank draft drawn upon its correspondent bank or by means of an exchange draft drawn upon the federal reserve bank. But the payee of the draft—the seller of the securities—would deposit it in his bank somewhere in the United States; and when the depository bank had sent the draft through for payment, Bank A would lose \$90,000 of primary reserves and the depository bank would gain an equal amount—of which \$72,000 would be excess or free reserves available for lending or investment.

MISCELLANEOUS TRANSACTIONS WHICH AFFECT EXPANSION

The illustration we have employed shows the possibilities of expansion when each bank lends or invests exactly the amount of its excess reserves. But banks are affected by many types of transactions other than the granting of loans, the purchase of securities, and the receipt and payment of

deposits. To complete our analysis, we must judge the effects of certain other kinds of transactions upon the process of expansion. The following are sufficiently representative:

1) A depositor upon receiving checks, instead of depositing them, repays a loan which he owes the bank.

2) A depositor upon receiving checks, instead of depositing them, uses them to purchase securities.

3) A bank upon receiving a deposit, instead of making a loan, deposits the new primary reserves with a correspondent bank.

4) A bank upon receiving a deposit, instead of making a loan, repays a loan which it owes a correspondent bank.

Repayment of Loans by Depositors.—Regarding the first of these transactions, let us suppose that the individuals who receive the \$90,000 of checks drawn upon Bank A, instead of depositing them with Bank B, repay loans of that amount owing to Bank B. The latter's statement would then appear as follows:

Bank B

Primary reserves	250,000	Demand deposits	800,000
Loans and discounts	410,000		

Bank B is now in the position formerly occupied by Bank A, that is to say, the full \$90,000 are excess reserves and loans of that amount may be granted, or investments of that amount may be purchased.

Investment in Securities by Depositors.—If the payees of the checks of \$90,000 drawn upon Bank A purchase securities with them, the checks would be turned over to the sellers of securities; and it may reasonably be presumed that the latter would deposit them in their demand deposit accounts. In this way, some bank or group of banks, among which Bank B might or might not be included, would receive new deposits of \$90,000 and would be in a position to make new loans of \$72,000.

Deposits of Banks with Correspondents.—If Bank B were to deposit its excess reserves of \$72,000 with its correspondent bank, its power to lend or invest would not be affected, for it would include the deposit among its primary reserves. But the correspondent bank would then have new primary reserves in excess of the amount necessary to safeguard Bank B's deposit, so that it too would be in a position to make new loans and investments. Let us assume that Bank C is the correspondent of Bank B. After Bank B receives the deposit of the \$90,000 of checks drawn upon Bank A, its balance sheet and that of Bank C appear as follows:

Bank B

Primary reserves	250,000	Demand deposits	890,000
Loans and discounts	500,000		

Bank C

Primary reserves	160,000	Demand deposits	800,000
Loans and discounts	500,000		

Bank B deposits its excess reserves of \$72,000 with Bank C; but the former's balance sheet is not changed, for it includes the deposit with Bank C among its primary reserves. Bank C's statement appears as follows:

Bank C

Primary reserves	232,000	Demand deposits	872,000
Loans and discounts	500,000		

Although Bank B continues to regard the deposit of \$72,000 as excess reserves, Bank C, after allowing for a 20 per cent reserve against all deposits including that of Bank B, finds itself with \$57,600 of excess reserves. If both banks were to lend the full amount that they apparently have available, the new loans would total \$129,600—and this amount would become new primary reserves for other banks, with the result that the expansion of demand deposits (assuming that depositary banks also keep at correspondent banks the reserves which they gain) could progress on this higher level. What happens is that the reserves of the banking system absorb a fictitious element, and the total of "true" reserves actually becomes less than 20 per cent. In short, the reserves are pyramided, a situation which may obtain, as we have seen,¹ when reserves are redeposited with correspondent banks.

Repayment of Interbank Loans.—Pyramiding would not occur if Bank B were to pay the \$72,000 to Bank C on a loan previously obtained from the latter. In that event, Bank B's primary reserves would be reduced, and a liability, bills payable, would be reduced in an equal amount. If we assume that Bank C's loans and discounts account had included the loan to Bank B, the two statements after the repayment would read as follows:

Bank B

Primary reserves	178,000	Demand deposits	890,000
Loans and discounts	500,000		

Bank C

Primary reserves	232,000	Demand deposits	800,000
Loans and discounts	428,000		

Bank B would now have no excess reserves, but Bank C would have excess reserves of \$72,000 which it would be free to lend to its customers or to invest in securities.

¹ See above, p. 214.

The Sources of Commercial Bank Primary Reserves

In observing thus far the process by which excess reserves are expanded in the creation of new demand deposits throughout the commercial banking system, we merely assumed that certain excess reserves originally existed in the possession of Bank A. It now becomes necessary to inquire into the origins or sources of commercial bank primary reserves. The importance of such an inquiry may be realized when we reflect that any event which introduces new primary reserves into the banking system is capable of starting the whole process of expansion; and, conversely, any event which totally removes primary reserves from the banking system tends to cause multiple contraction of demand deposits.

The sources of commercial bank primary reserves may be explained in terms of the so-called "factors of increase and decrease," statistics of which on weekly, monthly, and annual bases are published by the Board of Governors of the Federal Reserve System. The *factors of increase* are so named because an expansion of these items results in an *increase* of commercial bank primary reserves; and the *factors of decrease* derive their name from the fact that their expansion results in a *decrease* of commercial bank primary reserves. It follows that primary reserves are increased by reductions in the factors of decrease, and are decreased by reductions in the factors of increase. Because there are ten factors in all, as listed below, it should be obvious that the effects of changes in any one factor or in any group of factors may be offset in whole or in part by changes in other single factors or groups.

The factors of increase are the following:

- 1) Discounts and advances of the federal reserve banks
- 2) United States government securities held by the federal reserve banks
- 3) Other federal reserve bank credit
- 4) Monetary gold stock
- 5) Treasury currency outstanding;

and the factors of decrease are the following:

- 1) Money in circulation
- 2) Treasury cash holdings
- 3) Treasury deposits with the federal reserve banks
- 4) Nonmember deposits with the federal reserve banks
- 5) Other federal reserve accounts.

STATISTICS OF THE FACTORS OF INCREASE AND DECREASE

Although the reports of the federal reserve authorities are designed to show how changes in the factors of increase and decrease combine to produce certain net changes in the *reserve balances of member banks on deposit*

at the federal reserve banks, the factors are really of greater significance than this, for they are directly or indirectly the determinants of all commercial bank primary reserves. Thus the reports include as "money in circulation" all hand-to-hand money outside the Treasury and the federal reserve banks, but some of this money is doubtless held by the commercial banks as vault cash. Likewise, the federal reserve authorities treat increases in the deposits of nonmember banks at the reserve banks—such as clearing balances—as a

TABLE 18

FACTORS OF INCREASE AND DECREASE AND MEMBER BANK RESERVE BALANCES, 1928-1945

(In millions of dollars)

End of year	Federal reserve credit			Gold stock	Treasury currency outstanding	Money in circulation	Treasury cash holdings	Treasury deposits with FR banks	Nonmember deposits	Other federal reserve accounts	Member bank reserve balances
	Discounts and advances	U. S. government securities	Other reserve bank credit								
1928	1,545	228	35	3,854	2,012	4,686	202	23	27	348	2,389
1929	1,024	511	48	3,997	2,022	4,578	216	29	30	393	2,355
1930	615	729	29	4,306	2,027	4,603	211	19	28	375	2,471
1931	977	817	59	4,173	2,035	5,360	222	54	110	354	1,961
1932	268	1,855	22	4,226	2,204	5,388	272	8	43	355	2,509
1933	231	2,437	20	4,036	2,303	5,519	284	3	132	360	2,729
1934	13	2,430	20	8,238	2,511	5,536	3,029	121	189	241	4,096
1935	10	2,431	45	10,125	2,476	5,882	2,566	544	255	253	5,587
1936	6	2,430	64	11,258	2,532	6,543	2,376	244	259	261	6,606
1937	11	2,564	38	12,760	2,637	6,550	3,619	142	407	263	7,027
1938	5	2,564	33	14,512	2,798	6,856	2,706	923	441	260	8,724
1939	7	2,484	102	17,644	2,963	7,598	2,409	634	653	251	11,653
1940	3	2,184	87	21,995	3,087	8,732	2,213	368	1,732	284	14,026
1941	3	2,254	104	22,737	3,247	11,160	2,215	867	1,360	291	12,450
1942	6	6,189	484	22,726	3,648	15,410	2,193	799	1,278	256	13,117
1943	5	11,543	691	21,938	4,094	20,449	2,303	579	1,716	339	12,886
1944	80	18,846	819	20,619	4,131	25,307	2,375	440	1,598	402	14,373
1945	249	24,262	580	20,065	4,339	28,515	2,287	977	1,308	495	15,915

Source: *Annual Report of the Board of Governors of the Federal Reserve System*, 1941, p. 48, and *Federal Reserve Bulletin*.

factor which reduces member bank reserve balances; but so far as the non-member banks are concerned, their deposits at the federal reserve banks are included among their primary reserves.

To demonstrate how the factors of increase and decrease may be analyzed to show why changes in member bank reserve balances take place, we present in Table 18 end-of-the-year statistics of the factors for the period since 1928 and in the chart on page 232 weekly data for a somewhat shorter period. Let us analyze the changes which took place between

December, 1944, and December, 1945. In that period, member bank reserve balances increased from \$14,373,000,000 to \$15,915,000,000, a net increase of \$1,542,000,000. To account for this increase, we may set down the factors of increase and decrease in the following manner (all figures in millions of dollars):

	December, 1944	December, 1945	Change
Factors of increase:			
Discounts and advances of the federal reserve banks.....	80	249	169
United States government securities held by the federal reserve banks....	18,846	24,262	5,416
Other federal reserve credit.....	819	580	- 239
Monetary gold stock.....	20,619	20,065	- 554
Treasury currency outstanding.....	4,131	4,339	208
Total of factors causing increases in member bank reserves.....			5,000
Factors of decrease:			
Money in circulation.....	25,307	28,515	3,208
Treasury cash holdings.....	2,375	2,287	- 88
Treasury deposits at the federal reserve banks.....	440	977	537
Nonmember deposits at the federal reserve banks.....	1,598	1,308	- 290
Other federal reserve accounts.....	402	495	93
Total of factors causing decreases in member bank reserves.....			3,460
Net effect of factors upon member bank reserves.....			1,540

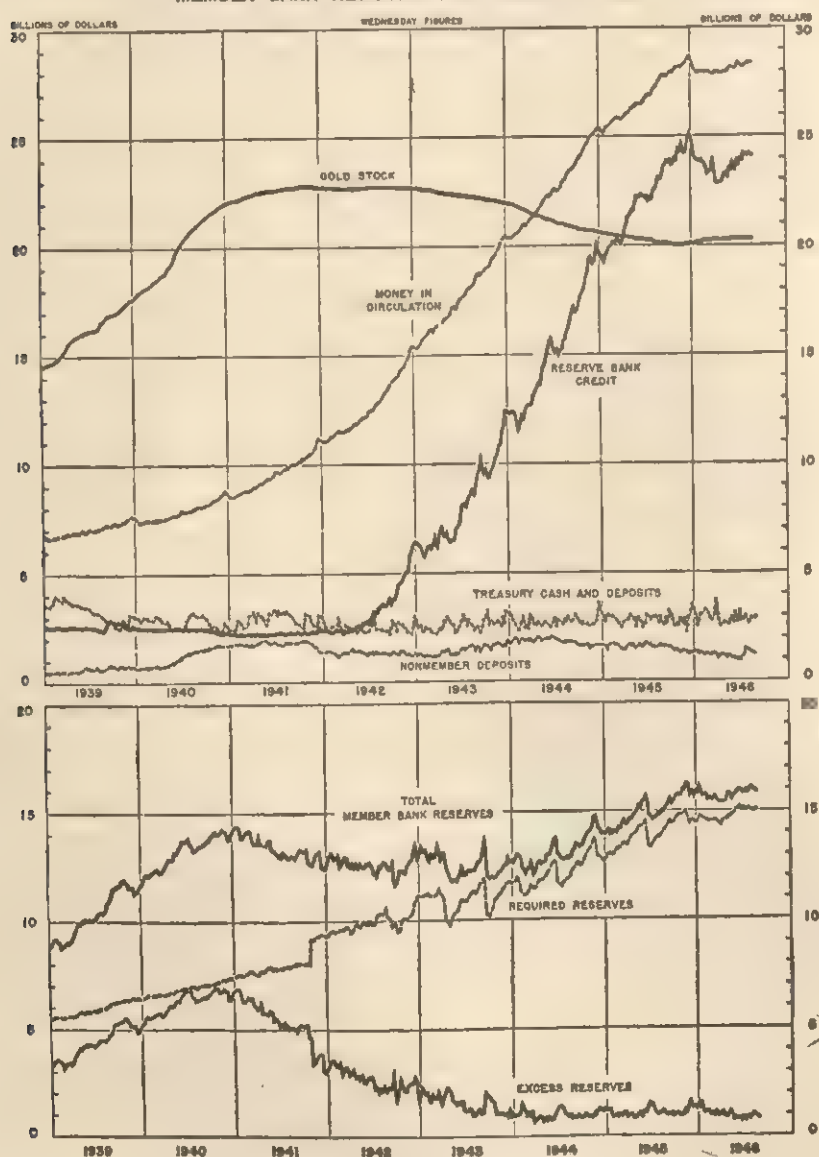
FACTORS OF INCREASE

Discounts and Advances of the Federal Reserve Banks.—The relationship between the volume of discounts and advances of the federal reserve banks and changes in member bank reserve balances is quite direct. This is necessarily so because discounts and advances are loans granted by the reserve banks to member banks. The member banks usually ask merely that the proceeds of the loans be credited to their reserve balances; hence the granting of loans and the expansion of reserve balances usually take place simultaneously. In repaying loans due the federal reserve banks, the member banks customarily draw exchange drafts against their reserve balances, so that discounts and advances and the reserve balances are reduced at the same time.

United States Government Securities Held by the Federal Reserve Banks.—The purchase and sale of United States government securities by the reserve banks tend to have effects upon member bank reserve balances identical with those which originate in the granting and repayment of discounts and advances. In buying securities, the reserve banks customarily pay by means of cashiers' checks drawn upon themselves. The checks are given to the sellers of the securities, who may be individuals, commercial banks, or other institutions. When individuals or institutions other than the

commercial banks receive such checks, they deposit them at the commercial banks; and the commercial banks, whether they receive the checks as sellers of securities or by way of customers' deposits, send them to the reserve banks

MEMBER BANK RESERVES AND RELATED ITEMS



Source: Board of Governors of the Federal Reserve System.

for credit in their reserve balances. When securities are sold by the reserve banks, the buyers draw checks upon their local banks to pay for them, and the reserve banks decrease the accounts of these banks in collecting payment

on the checks. When the commercial banks themselves are the buyers, they ordinarily pay for the securities directly out of their reserve balances at the federal reserve banks.

Other Federal Reserve Bank Credit.—Additional primary reserves for the member banks are provided when the federal reserve banks purchase bankers' acceptances and the securities of federal corporations and agencies and of state and local governments, when they grant loans to industrial concerns, and when they grant credit to member banks in the clearing of checks before they themselves have collected payment; primary reserves are wiped out when these transactions are reversed.

As the purchase and sale of bankers' acceptances and other securities are similar in their effects to the purchase and sale of United States government obligations, such transactions need no further explanation.

The federal reserve banks are authorized, under limited circumstances, to grant loans direct to industrial concerns for working capital purposes. The expansion of such loans is likely to have the effect of increasing member bank reserve balances, for as the industrial concerns spend the funds borrowed, the checks they draw are deposited at the commercial banks. As the commercial banks send these checks to the reserve banks for collection, their reserve balances are credited. When industrial firms repay loans to the federal reserve bank, they draw checks against their deposits with the commercial banks, and the federal reserve banks charge the accounts of the commercial banks in collecting payment on the checks.

When commercial banks send checks to the federal reserve banks for clearing, the latter increase the reserve balances of the clearing banks for the face value of the checks according to their "availability schedules." Frequently, however, the schedules do not allow enough time for clearing, with the result that the reserve balances of the clearing banks are increased before those of the drawee banks are reduced. To the extent, therefore, that reserve balances are increased prematurely new primary reserves are created.

Monetary Gold Stock.—Though the federal government does not provide for the unlimited redemption in gold of the various kinds of hand-to-hand money and bank demand deposits, gold, as our standard money, still remains as the principal source of primary reserves in the banking system. The importation of gold from foreign countries, the sale to the government of the newly mined product by mining companies, and the sale to the government of gold reclaimed from jewelry all have the effect of expanding the volume of member bank reserve balances; and the exportation of gold, its "earmarking" in the United States for foreign account, and the sale of gold by the Treasury for commercial uses all have the effect of extinguishing an equivalent quantity of reserve balances.

Suppose, for example, that a foreign central bank were to send a shipment of gold to an American commercial bank for deposit credit. The American bank would be required to surrender the gold to the Treasury at

the price of \$35 per ounce less mint and handling charges. The American bank would be paid by means of a check drawn by the Treasury upon its deposits with the federal reserve banks. In paying the check, the federal reserve banks, as fiscal agents of the government, would reduce the Treasury's deposit balance and increase the reserve balance of the importing bank. On the other hand, if a manufacturing jeweler were buying gold from the Treasury, he would draw a check against a commercial bank payable to the Treasury, and the clearing of the check would reduce the commercial bank's reserve balance and increase the deposit account of the Treasury.

Gold purchased by the Treasury, be it noted, may at any time be used for monetary purposes—the Treasury needs only to deposit gold certificates with the federal reserve banks or to give them increased gold credits on its own books. The gold then serves as a 100 per cent reserve for the certificates or credits. No double increase in primary reserves is involved, however, because the Treasury deposit in the federal reserve banks merely replaces that used to purchase the gold.

Treasury Currency Outstanding.—Outstanding treasury currency includes the United States notes (or greenbacks), silver certificates, national-bank notes, federal reserve bank notes,² and subsidiary and minor coins. Any expansion in the total of these types of money tends to increase member bank reserve balances in equal amount. When the Treasury issues money—say, subsidiary coins, or silver certificates according to the terms of our silver purchase legislation—it deposits the money with the federal reserve banks and receives a credit in its deposit accounts. As it draws against these expanded accounts, its checks are deposited by the payees at the commercial banks. The commercial banks then send the checks to the reserve banks for collection, and the reserve banks transfer balances from the Treasury's accounts to the reserve accounts of the commercial banks.

When the Treasury retires its own monetary issues—such as the national-bank notes and the federal reserve bank notes—its deposit accounts at the reserve banks are reduced: the reserve banks accumulate the notes to be retired, send them to the Treasury for destruction, and decrease the Treasury's deposit accounts for the face value. Although this action has no immediate effect upon the reserve balances of member banks, such reserve balances are likely to be reduced subsequently if the Treasury decides, by means of taxation or borrowing, to replenish its deposit accounts.

FACTORS OF DECREASE

Money in Circulation.—All kinds of our hand-to-hand money flow into circulation through the agency of the federal reserve banks—and the most prominent kind is, of course, the type created and issued by the reserve banks

² Liability for the national-bank notes and the federal reserve bank notes, it will be recalled, was assumed by the Treasury when the debtor banks transferred funds to it to meet their obligations in full.

themselves, namely, the federal reserve notes. When their vault cash begins to run low, the member banks call upon the reserve banks to send shipments of hand-to-hand money, and they customarily instruct the reserve banks to reduce their reserve balances for the face value of the shipments. Hence the increase of money in circulation and the decrease in reserve balances normally take place simultaneously. Although the total primary reserves of the commercial banks—that is, including vault cash—are not immediately reduced by the shipments of money, the commercial banks are not likely to request shipments unless their customers are withdrawing extraordinary amounts. As the customers' withdrawals deplete the vault cash of the banks, the reduction in primary reserves becomes absolute. Thus it is possible to say that the general public has the capacity greatly to influence the size of bank reserves—a fact which has been amply demonstrated in the unprecedented expansion of hand-to-hand money in circulation in recent years.

As customers redeposit with the commercial banks hand-to-hand money formerly held in personal hoards, the banks are likely to find themselves with unnecessarily large quantities of vault cash. Accordingly, they dispatch the excess to the federal reserve banks, where their reserve balances are increased. Hence the reduction in the volume of money in circulation and the increase in reserve balances tend to occur simultaneously.

Treasury Cash and Deposits.—The decisions of officials respecting the distribution of the Treasury's "working balance" also have important bearings upon the quantity of member bank reserve balances. One portion of the "working balance" is held as hand-to-hand money in the Treasury itself, and other portions are deposited with the federal reserve banks and with the commercial banks—both of which are used interchangeably as depositories. One must be careful, however, not to include the tremendous gold holdings of the Treasury in its "working balance," because most of them are held as security for the certificates and credits owing to the federal reserve banks; but the "working balance" does include those portions of the profits of devaluation which have never been "spent," as well as a few minor items of "free gold."

As huge sums of money are received by the Treasury from taxpayers and from the purchasers of its securities, the officials must decide where these funds are to be held. Some payments are made in hand-to-hand money, but most are made by means of checks drawn upon the commercial banks and payable to the Treasury. As the Treasury clears the checks, some of the proceeds may be redeposited at the local banks, with the result that the primary reserves of the commercial banking system as a whole are not changed, although doubtless a redistribution of reserves among individual banks takes place. The Treasury, on the other hand, may (and usually does) deposit many of the checks in its accounts with the federal reserve banks. When the reserve banks present the checks to the commercial banks for payment, the latter customarily authorize the reserve banks to reduce

their reserve balances; in this way, the commercial banks lose an equal volume of primary reserves.

During the course of the year, as the Treasury issues checks drawn upon the federal reserve banks in payment of salaries, interest, the cost of supplies, and other expenses, the payees of the checks deposit them with the commercial banks. The commercial banks, in turn, send them to the reserve banks for collection and have their reserve balances increased, while the Treasury's deposit accounts are reduced.

Nonmember Deposits at the Federal Reserve Banks.—Nonmember deposits at the federal reserve banks include those of state commercial banks which are not members of the Federal Reserve System but which maintain clearing balances, those of federal corporations and agencies other than the Treasury, and those of foreign governments and foreign central banks. That portion of these deposits which represents the clearing balances of nonmember state banks requires no description, for it, too, is included among the primary reserves of the commercial banking system. Changes in the deposit accounts of federal corporations and agencies have effects similar to those produced by increases and decreases in the Treasury's deposit accounts at the reserve banks. When, for example, the commercial banks pay insurance assessments to the Federal Deposit Insurance Corporation, their reserve balances are reduced if the FDIC deposits the assessment checks at the federal reserve banks; similarly, the commercial bank reserve balances tend to be restored when the FDIC draws checks against the reserve banks in meeting its operating expenses and in purchasing investment securities.

An increase in the deposits of foreign governments and foreign central banks at the reserve banks tends to have the effect of reducing the reserve balances of American commercial banks, and a reduction of these deposits, a contrary effect. Thus if a foreign government were to float a bond issue in the United States and to accumulate the proceeds at the federal reserve banks, the commercial banks would lose primary reserves as their customers, in buying the bonds, drew checks payable to the foreign government or to its local fiscal agent. In a comparable way, the drawing of checks by a foreign government against its deposits with the federal reserve banks in payment of interest upon its bonds held in the United States, the expenses of diplomatic missions, and the like, would have the effect of increasing primary reserves as the checks were deposited at the commercial banks and cleared by them.

Other Federal Reserve Accounts.—The factor *other federal reserve accounts* is determined by adding the capital, surplus, other capital accounts, and "other liabilities, including accrued dividends" of the federal reserve banks, and subtracting the sum of bank premises and "other assets." A moment's reflection should indicate why a net increase in this factor would produce a decrease in member bank reserve balances. Suppose, for example,

that certain member banks have expanded their capital and surplus so that they must, in accordance with the requirements of membership,³ subscribe for additional stock in the federal reserve banks of their respective districts. They would very likely pay for the stock by authorizing the federal reserve banks to charge its cost against their reserve balances. Or, again, suppose that member banks must make other payments to the reserve banks, such as interest upon loans. Payments of this kind would normally be charged against reserve balances, and, at the same time, they would increase—to the extent that they were not offset by the expenses of the reserve banks—the surplus accounts of the reserve banks. On the other hand, the purchase of buildings and equipment and the payment of expenses by the reserve banks would tend to increase the reserve balances of member banks, for the checks issued by the reserve banks would be deposited with the member banks, and the latter, in turn, would present them to the reserve banks for payment.

Federal Reserve Credit

The frequent references to the operations of the federal reserve banks in the foregoing description of the factors of increase and decrease are indicative of the importance of the role of the reserve banks in the expansion and contraction of commercial bank primary reserves. The significance of the reserve banks in this respect, indeed, cannot be too strongly emphasized, for they may be regarded as the reservoirs from which bank credit flows into the commercial banks and through them into the hands of the general public. The expansion of bank credit in the United States depends very largely upon the resources of the federal reserve banks; conversely, the same resources are an important factor in determining when contraction of bank credit is necessary. Let us see why this is so.

RESERVES AGAINST RESERVE BANK DEPOSIT LIABILITIES

The federal reserve banks are required to maintain a reserve of gold certificates equal to 25 per cent of their deposit liabilities. Before June 12, 1945, the reserve requirement was stated as 35 per cent in gold certificates "or lawful money"—the latter including such types of money as silver certificates and greenbacks—but legislation adopted on that date reduced the requirement and restated it solely in terms of gold certificates. The law requires the Board of Governors of the Federal Reserve System to assess a graduated tax upon the federal reserve banks if the reserve is permitted to fall below the 25 per cent level, but the rate of tax is not stipulated, nor is there any direction that the rate of tax be added to the discount rates which the reserve banks charge in granting loans to member banks and other borrowers.⁴

³ See below, p. 336.

⁴ It will be recalled that the provisions of the Federal Reserve Act which refer to deficient reserves in connection with outstanding federal reserve notes specifically designate the rates of tax and require the addition of such rates to the discount rates. See above, p. 113.

The deposit liabilities, as we have seen, consist of the reserve balances of member banks, the clearing balances of nonmember state banks, the deposits of the Treasury and of other government corporations and agencies, and the deposits of foreign governments and central banks. In brief, deposits held at the federal reserve banks, though regarded as assets by their owners, are liabilities of the reserve banks—just as the demand deposit account of a businessman at a commercial bank is regarded by him as an asset, but as a liability by the bank itself.

In view of the 25 per cent reserve requirement, a dollar of gold certificates held by the federal reserve banks will "support" four dollars of member bank reserve balances (that is, $\$1.00 \div .25 = \4.00); and four dollars of member bank reserve balances—which, of course, are primary reserves—can be expanded to twenty dollars of commercial bank demand deposits (assuming, as before, that the average reserve ratio is 20 per cent). To the extent, therefore, that federal reserve bank holdings of gold certificates are not needed for other purposes, they may be used in expanding member bank reserve balances, which may in turn serve as the basis for a severalfold expansion of demand deposits.

MAXIMUM EXPANSION OF FEDERAL RESERVE CREDIT

The potency of the gold certificate resources of the federal reserve banks as a factor determining the expansibility of demand deposits may best be understood if we employ an illustration. For this purpose, it is appropriate to cite certain figures from a recent statement (that of June 6, 1946) of the combined assets and liabilities of the twelve reserve banks, as follows:

Assets:	
Gold certificates	\$17,344,055,000
Redemption fund for federal reserve notes	747,267,000
	<hr/>
Total gold certificate reserves	18,091,322,000
 Liabilities:	
Federal reserve notes	24,104,137,000
Deposits:	
Member bank—reserve account	15,798,813,000
United States Treasurer—general account	394,158,000
Foreign	618,505,000
Other	444,614,000
	<hr/>
Total deposits	17,256,090,000

Our analysis should indicate the extent to which commercial bank demand deposits may be expanded on the basis of the unused or excess gold certificate reserves of the federal reserve banks. We are interested at the moment in maximum theoretical expansibility, and not in the expansion which might actually be countenanced.

First of all, the federal reserve banks would be required to allocate \$10,340,057,000 of gold certificates to satisfy the 25 per cent reserve requirement applying to their deposits and outstanding notes. The law requires the pledge of additional collateral consisting of gold certificates, commercial paper, or direct obligations of the United States equal to 75 per cent of the face value of outstanding federal reserve notes, but as the total holdings of direct obligations of the federal government on the date for which the foregoing figures were issued amounted to \$22,779,936,000, no additional gold certificates would have to be set aside as collateral for the notes. The segregation of gold certificates to satisfy the reserve requirements, therefore, would leave \$7,751,265,000 of such certificates available as "excess reserves." Held as reserves, that sum would "support" \$31,005,060,000 of new commercial bank reserve balances; and that quantity of reserve balances (still assuming an average reserve ratio of 20 per cent) would make possible an expansion of demand deposits by the commercial banks amounting to \$155,025,300,000.⁵

Nor, indeed, do the possibilities of expansion stop there. The Board of Governors, as we have seen, possesses the power to reduce the reserve requirements of member banks; any reduction makes it possible for the member banks to expand their demand deposits by a larger multiplier. Moreover, the board may suspend the 25 per cent requirement which applies to the reserve banks themselves; although the law requires the assessment of a graduated penalty tax on account of deficient reserves, the board has the capacity to make the rate of tax quite negligible. The requirement may be suspended for a period of thirty days, and the suspension may be continued for an indefinite number of additional periods of fifteen days each—which means, of course, that the total period of suspension may last as long as the board decides.

AVAILABILITY OF FEDERAL RESERVE CREDIT

Just as the expansion of the demand deposits of the commercial banks normally takes place when such banks grant loans and purchase securities, so also may the commercial bank reserve balances be expanded through the lending and investment operations of the federal reserve banks. When commercial banks borrow at the reserve banks by rediscounting their customers' paper or by discounting their own promissory notes, they usually ask merely that the proceeds be credited to their reserve accounts. But the

⁵ If we use the data reported by the federal reserve banks in their statements of June 6, 1946, and if we apply the reserve requirements which obtained before the adoption of the act of June 12, 1945 (40 per cent in gold certificates for the notes and 35 per cent in gold certificates or lawful money for deposits), we find that the excess reserves would have amounted to \$2,674,797,000; such reserves would have been expendable to a maximum of \$7,642,277,000 in commercial bank reserve balances and to \$38,211,385,000 of commercial bank demand deposits. The comparison indicates the great significance of the act of June 12, 1945, in reducing reserve requirements, as well as the continuing significance of reserve requirements as a limiting factor in monetary expansion.

operation reduces the "excess reserves" of the federal reserve banks in an amount equal to 25 per cent of the rediscounts and advances granted. Similarly, as we have seen, the purchase of government securities by the reserve banks generally results in an increase of equal amount in the reserve balances of the commercial banks, since the sellers of the securities deposit the checks they receive at the commercial banks, and the latter send them to the reserve banks for credit in their accounts. Once again, however, the increase in commercial bank reserve balances reduces the free gold certificate resources of the reserve banks.

The use of reserve bank gold certificate reserves as the basis for credit expansion may, therefore, be initiated by the commercial banks or by the reserve banks themselves. The commercial banks may start the process of expansion by borrowing from the federal reserve banks, or the federal reserve authorities, by deciding to buy securities at certain times, may initiate the process of expansion. This fact parallels one to which we previously gave our attention: that the expansion of demand deposits may be initiated by businessmen in borrowing from the commercial banks, or by the commercial banks themselves in buying investment securities.

A final important aspect of the position of the federal reserve banks should be mentioned: if the reserve banks have a dollar of excess reserves, they may immediately lend or invest four dollars. In this respect, they differ from the commercial banks which, as we have said, can safely lend only the amount of their excess reserves. We said that when a commercial bank makes a loan, it may expect the full proceeds to be drawn out—but is this not also true of the reserve banks? If the reserve banks were to lend \$10,000,000 while having only \$2,500,000 of free gold certificates available, would they not be embarrassed should the commercial banks ask that the \$10,000,000 be supplied them in the form of hand-to-hand money? And what would happen if the reserve banks, while having only \$2,500,000 of excess reserves on hand, expanded commercial bank reserve balances by buying \$10,000,000 of government securities, and then received requests from the commercial banks for \$10,000,000 in hand-to-hand money?

The answer to these questions is that the federal reserve banks have the extraordinary power of creating hand-to-hand money to meet any demands of the kind mentioned. They may meet the requests for hand-to-hand money by issuing new federal reserve notes, leaving undisturbed their holdings of gold certificates. The gold certificates, together with the paper upon which the commercial banks borrow or the government securities that the reserve banks buy, may be turned over to the federal reserve agents as reserves and collateral for the new notes. In a word, the reserve banks are able to substitute one type of promise to pay (notes) for another type (deposit liabilities)—and this is a prerogative which no commercial bank is able to exercise.

100 Per Cent Reserves

The endowment of the commercial banks with the capacity to create demand deposits through their operations in lending and investment, as has been described in this chapter, is a matter which has not been accepted without challenge. Some critics go so far as to say that the creation of demand deposits by the commercial banks is a subterfuge employed to circumvent the will of governments which have long since deprived them of the power to create money in the form of bank notes. However that may be, many able theorists believe that the financial structure would be better ordered, and that monetary problems would be more easily solved, were the commercial banks to be stripped of their power of money creation. For the attainment of such an objective, several proposals have been advanced to require commercial banks to maintain 100 per cent reserves against their demand deposits.

SCOPE OF THE 100 PER CENT PLAN

Although several variations of the 100 per cent reserve plan have been offered,⁶ we shall find it convenient to take a cross-section view. The commercial banks would become purely demand deposit institutions, or, at least, the demand deposit operations of a modern bank would be strictly segregated from all other operations. The special institution or special department would not have the capacity to lend or to invest; it would be purely a custodian of the people's money, and it would have at all times a dollar of reserves for every dollar of its demand deposit liabilities. The reserves might be held entirely in the form of hand-to-hand money in its own vaults, as balances with the federal reserve banks, or as a combination of the two. At no time, therefore, would there be any question as to the ability of a bank to meet its demand deposit liabilities in full.

The functions of lending and investing would be taken care of in other departments of the bank or in other institutions. The loan and investment funds of these other departments or institutions would be derived from the sale of capital stock, the sale of certificates of indebtedness, and the receipt of time deposits. In order that the objectives of the 100 per cent plan be not circumvented, it would be necessary that notice of withdrawal of time deposits be strictly required, and that the maturity of certificates be specifically stated; in this way, the time deposits and the certificates would not likely become mediums of exchange—to take the place, in other words, of demand deposits. Only small reserves—or no reserves at all—would be required for certificates or time deposits; hence all or almost all of the funds

⁶ See Henry Simons, *A Positive Program for Laissez Faire* (Chicago: University of Chicago Press, 1934), pp. 23–26; Irving Fisher, *100 Per Cent Money* (New York: Adelphi Co., 1935); Lauchlin Currie, *The Supply and Control of Money in the United States* (Cambridge: Harvard University Press, 1934), pp. 157–183; and James W. Angell, "The 100 Per Cent Reserve Plan," *Quarterly Journal of Economics*, November, 1935, pp. 1–35.

derived would be available for loans and investments. But the time deposit department—let us call it that—could not create money, for it would need to have on hand the full amount of all sums loaned. Even if the borrowers took the proceeds of their loans as demand deposits, it would be necessary for the time deposit department to transfer to the demand deposit department the full proceeds of the loans, so that the demand deposit department could continue to satisfy the 100 per cent requirement.

Holders of demand deposits would be privileged to convert their deposits into time accounts, but they would immediately become subject to the strict withdrawal regulations. By their action in converting, however, they would release to the bank additional funds which the time deposit department would be free to lend or invest.

To convert our present commercial banking system into a 100 per cent reserve system it would be necessary to find some means to enlarge bank reserves so that they would be equal to the full amount of existing demand deposits. This could be done by the purchase of government bonds and other assets from the banks by the federal reserve banks or perhaps by a new "monetary authority." Thus the only asset to be retained by the demand deposit department would be money—either hand-to-hand money or reserve balances with the central bank or monetary authority; but the time deposit department would hold a portfolio of business paper and investment securities, depending, as at present, upon the character of its loan and investment operations.

The demand deposit department of the bank would presumably recoup the income lost through the disposal of all its earning assets by increasing the "service charges" to be assessed upon users of demand deposit accounts; in this way, the cost of bank services would be more carefully allocated to those who enjoy the benefits of such services. Or, if the advantages of 100 per cent banking were so great as obviously to provide a general public benefit, the government might well subsidize the operations of the demand deposit departments so that service charges could be kept moderate.

EVALUATION OF THE PLAN

The principal advantages claimed for the 100 per cent reserve plan are two: first, the avoidance of banking panics with their attendant widespread bank failures in time of economic crises; and, second, the avoidance of the pernicious effects resulting from the rapid expansion of bank credit in periods of boom and from the severe contraction in periods of depression. Other advantages sometimes claimed for the plan include the elimination of deposit insurance and therewith all questions of the inequity of taxing strong banks to succor the weak, and the reduction of the national debt, or at least its burden, through the acquisition by the central bank or by the monetary authority of many of the government securities held at present by the commercial banks. With respect to the last-named advantage, the argu-

ment is that the government securities held by the central bank or the monetary authority could be canceled or exchanged for others bearing no interest.

That the solvency of banking institutions would be greatly enhanced by a 100 per cent reserve requirement is a matter about which there can be little dispute. The public would doubtless have full confidence that demand deposits could be freely withdrawn at any time; hence the anxiety respecting the soundness of banks, which has been a notable feature of past economic crises, could be removed. But the solvency of the time deposit departments would not be assured in the same way, and public loss of confidence might still reach large proportions. While it is true that the strict enforcement of notices of withdrawal would prevent "runs" in the old sense—giving the banks a "breathing spell" in which to liquidate their assets to meet withdrawal demands—the concerted selling of securities in a depressed market might well render many banks insolvent. Critics of the 100 per cent plan assert, moreover, that questions of confidence in times of economic crises have largely lost their pertinence, in view of the system of deposit insurance and the greatly enlarged capacity of the federal reserve banks to come to the assistance of the commercial banks.

The argument that the 100 per cent plan would avoid the pernicious effects of money creation and destruction in the various phases of the business cycle is based upon the proposition that the demand deposit departments could not lend at all, and the time deposit departments could lend only the amount of money actually on hand—and no more. The time deposit departments, in other words, would generally have available for lending only the genuine savings of the public deposited with them, plus such additional sums of new money as the central bank or monetary authority might create by buying additional securities in the market—and the central bank or monetary authority would presumably act to create new money only in accordance with developments, such as the growth of population, which would clearly justify additional amounts. In criticism of this argument, the objection may be offered that the calling of loans and the sale of securities by the time deposit departments in time of crisis would likely occasion depressive reductions in the supply of money in the hands of the public, for demand deposits would evaporate as debtors drew checks payable to the time departments. Other objections are that the time departments might not lend or invest all the funds available to them, so that they would be hoarding the true savings of the people instead of making them available for industrial expansion; that the velocity of demand deposits—that is, the speed with which they are used—would be still free to vary markedly in periods of prosperity and depression; and that the central bank or monetary authority might not have the wisdom to control the expansion and contraction of the supply of money to allow for or to offset changing conditions.

The argument that the national debt, or the burden thereof, could be

reduced by the operation of the 100 per cent plan is hardly a respectable one; that is to say, any proposal for banking reform must be judged on its own merits, and without regard to any incidental advantages which might be derived by the federal government.

The critics of the 100 per cent plan, besides attempting to show weaknesses in the arguments of the proponents of the plan, call attention to certain results which, in their opinion, would likely prove harmful. Greatly increased service charges for the use of demand deposit accounts, they say, would militate against the widespread use of such accounts, and any concerted shift from checks to hand-to-hand money as means of payment would scarcely be interpreted as a progressive movement; moreover, the alternative of subsidizing the demand deposit departments at the expense of taxpayers would be no more equitable than the criticized method of levying deposit insurance assessments at the present time. Another harmful result which might well be expected would be the subjection of the central bank or the monetary authority to the influence of politics, for political leaders would presumably always be in favor of the expansion of the supply of money, and rarely in favor of contraction. A final objection, on the plane of practical politics, is that the plan would require such a general reorganization of financial institutions and financial practices that the possibilities of its adoption by a democratic legislative body, subject as it is to the push and pull of vested interests (including the potent banking fraternity), are likely to remain slight.

Chapter 16

LOANS AND DISCOUNTS

Lending Operations of Commercial Banks

LOANS, DEMAND DEPOSITS, AND RESERVES

Commercial banks use their primary reserves in conjunction with their power of creating money in granting short-term and long-term loans to businessmen, in supplying funds for the purchase of real estate, in providing purchasing power to consumers, in buying investment securities, and in other ways; but traditionally their chief field of operation has been the granting of short-term credit to manufacturers, wholesalers, merchants, farmers, and other enterprisers.

We have seen that the granting of loans by commercial banks is inextricably bound up with the creation of demand deposit accounts. A bank usually makes a loan by merely crediting the account of the borrower, who then is privileged to draw checks in the amount of the loan. The volume of the lending operations of a commercial bank is thus dependent upon its primary reserves and upon the possibilities of increasing the primary reserves from outside sources. When their reserve position is "tight," therefore, banks may be unable to expand their loans and discounts even though they desire to accommodate their customers; and at other times, because the demand for loans is not sufficient to take off the potential supply, the volume of their loans and discounts may be much smaller than they would like to have it.

Unused Lending Capacity.—Unused lending capacity has characterized the position of most commercial banks since 1933, as is shown by the continued presence of large quantities of excess reserves. It used to be said with a great deal of truth that banks were always "loaned up," that is, that they extended the maximum amount of credit possible. It was almost inconceivable that a bank should have excess primary reserves standing idle year after year. Yet that has been the situation obtaining generally since 1933. Table 19 shows the average excess reserves held by the member banks of the Federal Reserve System in certain months beginning in 1934. The figures do not include all excess reserves available in the banking system, since they refer only to balances held by member banks at the reserve banks, thereby

excluding excess vault cash and deposits with correspondent banks, and since many nonmember banks also had goodly quantities of excess reserves during this period. With approximately \$6,000,000,000 of unused reserves on deposit at the reserve banks in 1940, the member banks without endangering themselves could have granted new loans and discounts of approximately \$30,000,000,000. The great expansion of bank credit which took place during the period of the Second World War resulted in a marked decline in excess reserves, although widespread deficiencies in reserves did not occur. The "country banks" especially maintained substantial quantities of excess reserves throughout the war period, while the banks of some cities, particularly those of New York City, became deficient from time to time.

TABLE 19

EXCESS RESERVES OF MEMBER BANKS, SELECTED MONTHS, 1934-1946*

(In millions of dollars)

Year	March	June	September	December
1934	1,375	1,685	1,754	1,748
1935	2,065	2,438	2,628	2,983
1936	2,653	2,593	1,852	2,046
1937	1,371	876	900	1,071
1938	1,524	2,762	2,920	3,226
1939	3,432	4,246	5,198	5,011
1940	5,734	6,696	6,582	6,646
1941	6,304	5,351	5,116	3,390
1942	3,147	2,704	2,300	2,376
1943	1,884	1,461	1,417	1,048
1944	978	1,081	983	1,284
1945	1,010	1,339	1,063	1,491
1946	1,031	943		

* Monthly averages of daily figures. Excess reserves are balances of member banks at the federal reserve banks exceeding legal requirements.

Source: Board of Governors of the Federal Reserve System, *Banking Studies*, 1941, pp. 448-452, and *Federal Reserve Bulletin*.

The most important reason why the commercial banks failed, especially in the period of the 1930's, to employ their excess reserves is that an extraordinary decline in the demand for loans had developed. The depressed conditions of industry and trade were largely responsible for the decline, but other reasons were also present. For one thing, many large corporations have come to rely more and more upon their own resources in supplying their working capital. In the decade of the 1920's, a most remarkable integration of industry was accomplished, with the merging of competing companies, the creation of holding company systems, and the expansion of great national corporations in many fields formerly served by small businessmen. National organizations, such as the chain-store systems, have displaced thousands of small grocers and other merchants who were formerly dependent upon the commercial banks for their current operating funds. These corpo-

rations have often been able to sell stock and bond issues on better terms than would have been allowed them were they to negotiate loans at the banks. They have obtained cash both for plant expansion and for current operations from security flotations. Another formerly important source of demand for commercial bank credit—the purchase of securities by bank customers with borrowed funds—has necessarily been curtailed on account of the regulations of the Roosevelt Administration, particularly the margin requirements which will be considered in the following chapter.

Though the decline in the demand for loans has been real enough, the complaint is often heard that the commercial banks are unwilling longer to accept reasonable risks, so that prospective borrowers are unable to obtain adequate accommodations. Hence we have a paradox: the bankers bewail the small demand for loans, and would-be borrowers complain that the banks reject reasonable requests for loans. Both contentions undoubtedly have an element of truth, because the standards used by many banks in granting loans have become relatively severe, and many requests for loans which formerly would have been granted as a matter of course are now rejected. The memory of the banking crisis of the early years of the 1930's, together with the increasingly close regulations of federal and state banking authorities, have made many commercial banks extremely cautious in granting loans.

Commercial Banks as Investment Institutions.—The commercial banks, faced with the decreased demand for direct loans, have had to go afield in order to find profitable employment for their resources. As a matter of fact, they have tended more and more to assume the features of savings banks in view of their policy of buying securities issued by governments and corporations. In some cases, the great corporations have continued to borrow from the commercial banks, but they have done so indirectly by the sale of their bonds, rather than by the direct negotiation of loans. On the whole, however, the commercial banks have devoted a preponderant portion of their idle resources to the acquisition of obligations of the federal government, rather than the issues of corporations.

The phenomenal transformation which has taken place in the past few years in the portfolios of commercial banks may be understood by an examination of the statistics of member banks of the Federal Reserve System presented in Table 20. The data show the tremendous decline in the loans of commercial banks since the late 1920's—a decline which has been both relative and absolute. While loans accounted for 71.2 per cent of total loans and investments in 1925, they amounted to only 38.9 per cent of the total in 1936; and though a substantial expansion since 1936 has occurred, the relative position of total loans continued to deteriorate until 1946. On the other hand, the ever-increasing dependence of the commercial banks for their earnings upon obligations of the federal government is indicated by the nineteenfold expansion in their holdings between 1925 and 1946. It is truly

amazing to note that, despite the vast expansion of industrial activity during the period of the Second World War, the loan volume of the commercial banks did not approach the levels of 1929 and 1930.

Continued Importance of Lending.—It must not be supposed, on the basis of the foregoing discussion, that the lending operations of the commercial banks have ceased to be of importance. Though the relative decline in the proportion of commercial bank resources represented by loans and discounts has been phenomenal, loans continue to be one of the principal types of bank assets. As the use of bank funds for the purchase of obligations of the federal government requires little time or effort, the typical bank officer is able still to devote much of his time and attention to the

TABLE 20

LOANS AND INVESTMENTS OF MEMBER BANKS, SELECTED DATES, 1925-1946

(Dollar figures in millions)

Date	Total loans and in- vestments	Loans	Per cent of total	Obliga- tions of federal govern- ment	Per cent of total	Other in- vestments	Per cent of total
Dec. 31, 1925	\$30,884	\$21,996	71.2	\$ 3,728	12.1	\$5,160	16.7
June 30, 1927	32,756	22,938	70.0	3,796	11.6	6,022	18.4
Dec. 31, 1928	35,684	25,155	70.5	4,312	12.1	6,217	17.4
June 30, 1930	35,656	25,214	70.7	4,061	11.4	6,380	17.9
June 30, 1932	28,001	16,587	59.2	5,628	20.1	5,786	20.7
Oct. 17, 1934	27,559	12,293	44.6	9,895	35.9	5,372	19.5
June 30, 1936	32,259	12,542	38.9	13,672	42.4	6,045	18.7
Dec. 31, 1937	31,752	13,958	44.0	12,371	39.0	5,423	17.1
June 30, 1939	32,603	13,141	40.3	13,777	42.3	5,685	17.4
June 29, 1940	34,451	13,969	40.5	14,722	42.7	5,761	16.7
June 30, 1941	40,659	16,729	41.1	18,078	44.5	5,852	14.4
June 30, 1942	46,800	16,928	36.2	24,098	51.5	5,774	12.3
June 30, 1943	67,155	14,823	22.1	46,980	69.9	5,352	8.0
June 30, 1944	83,587	18,084	21.6	60,339	72.2	5,164	6.2
June 30, 1945	99,426	20,588	20.7	73,239	73.7	5,599	5.6
June 29, 1946	102,032	23,302	22.8	72,272	70.9	6,458	6.3

Source: Derived from *Federal Reserve Bulletin*.

analysis of loan applications. The exercise of great care in granting loans still is decisive in many instances in determining the success or failure of banks. An illiberal loan policy means reduced earnings, but on the other hand the earnings of a goodly volume of loans may be lost if a single one turns out to be bad.

INTEREST ON BANK LOANS

In the minds of many people, the rate of interest of 6 per cent seems to acquire a sacred character, and they believe that banks employ that rate as standard in all their lending operations. Nothing could be further from the truth, for the rates of interest charged by commercial banks have innumer-

able variations. They vary according to the size of loans, the purposes, the credit position of the borrowers, the location of the banks and the borrowers, the banks' asset position, the state of business conditions, and other factors. One may be quite sure that an industrial corporation which could float a bond issue yielding three or four per cent interest would not pay five or six per cent on loans negotiated at the commercial banks; and that a city government which could sell short-term bills in the open market at one per cent discount would not pay much more than that direct to a commercial bank.

Table 21 presents data which have been collected by the Board of Governors of the Federal Reserve System respecting rates charged on commercial loans by banks located in principal cities in various parts of the United States. The figures emphasize two facts, namely, the drastic decline in rates after 1929, and the appreciably higher rates prevailing in the cities of the South and West as compared with those charged in the cities of the North and East.

Classification of Loans

COMMERCIAL LOANS

Short-Term Advances for Production.—The loans made by commercial banks may be classified as commercial, capital, investment, and consumption loans. Commercial loans, strictly speaking, are short-term advances made to businessmen and farmers to supply purchasing power for current productive operations. Sometimes short-term agricultural loans are separately classified, but it is preferable to regard them as similar to loans made to manufacturers and merchants. In farming regions, the commercial banks may have few outlets for loan funds other than for agricultural purposes. Many special problems, it is true, are encountered in making loans to farmers; but our examination of these problems may be deferred to a later chapter where we discuss agricultural credit more fully.¹

The borrowings of businessmen to purchase raw materials and finished goods, to purchase factory and store supplies, to meet pay rolls, to pay current overhead expenses such as insurance, taxes, and light, heat, and power; the borrowings of farmers to purchase seed, fertilizer, and other supplies, to pay their hired hands, and to meet other current costs of operations—all these are proper outlets for the loan funds of a commercial bank; and they represent the special sphere in which commercial banks have traditionally operated. Loans for these purposes are generally of a short-term character, because the productive operations of the borrowers should quickly provide the funds with which they can be repaid. When a businessman borrows to buy raw materials and to pay his employees, he should be able to repay the bank when he sells the goods which he is fabricating. Such a loan is said to be *self-liquidating*.

¹ See Chapter 38.

Not all short-term loans made to businessmen and farmers are self-liquidating. If a businessman borrows from a commercial bank to pay an outstanding obligation for merchandise which he has already sold, the loan obviously is not self-liquidating. Again, if a manufacturer operates at so great a competitive disadvantage that he must sell his goods below the costs of production, a loan made to buy raw materials or to meet pay rolls is only partially self-liquidating.

Lines of Credit.—When customers have maintained profitable accounts with a commercial bank for some time, and have always met their obligations to the satisfaction of the bank, it may "open" for them *lines of credit*.

TABLE 21

AVERAGE RATES CHARGED CUSTOMERS ON COMMERCIAL LOANS, 1928-1945*

(Per cent per annum)

Year	Banks in New York City	Banks in seven other Northern and Eastern cities	Banks in eleven Southern and Western cities	Average rates in nineteen cities
1928	4.96	5.16	5.41	5.17
1929	5.76	5.82	5.93	5.83
1930	4.39	4.84	5.40	4.85
1931	3.82	4.26	4.90	4.30
1932	4.20	4.81	5.21	4.71
1933	3.43	4.46	5.04	4.27
1934	2.45	3.71	4.32	3.45
1935	1.76	3.39	3.76	2.93
1936	1.72	3.04	3.40	2.68
1937	1.73	2.88	3.25	2.59
1938	1.69	2.75	3.26	2.53
1939	2.07	2.87	3.51	2.78
1940	2.04	2.56	3.38	2.63
1941	1.97	2.55	3.19	2.54
1942	2.07	2.58	3.26	2.61
1943	2.30	2.80	3.13	2.72
1944	2.11	2.68	3.02	2.59
1945	1.99	2.51	2.73	2.39

* Reported on a monthly basis before 1939 and on a quarterly basis since then.

Source: Federal Reserve Bulletin.

A line of credit is a commitment upon the part of a bank to lend a customer any amount that he cares to take up to a specified maximum. As lines of credit may be opened for a month, a season, a year, or any other period of time, they enable bank customers to plan their business operations with confidence that the necessary credit will be forthcoming if it is needed. Customers who have lines of credit need not enter into prolonged negotiations with the bank every time that they want to increase their loans. A manufacturer who has a line of credit of \$25,000 may actually borrow only \$10,000 or \$15,000 if that is all he needs, but he knows that his request for

further credit will be honored if an additional amount is required. It is customary for banks to charge the full rate of interest only upon the amount actually borrowed and to levy a nominal rate—possibly .5 per cent or thereabouts—upon the unused portion of the line of credit.

Although lines of credit are quite advantageous from the viewpoint of the customer, they somewhat restrict the freedom of the bank. Even in times of difficulty, a bank will attempt to honor requests for loans coming from those who have been granted lines of credit. Thus at a time when a bank may be trying to strengthen its primary reserves, it may feel obligated to grant new loans because of its outstanding commitments. Hence lines of credit are opened only for a bank's "good" customers.

An outstanding feature of business finance during the period of the Second World War was the arrangement of huge lines of credit—sometimes running into hundreds of millions of dollars—by many of our leading industrial corporations, often with a score or more of banks participating. Uncertainty with respect to the volume of expenditures which would be necessary for the completion of war contracts led corporation executives to negotiate the lines of credit to avoid the danger of running short of working capital.

CAPITAL LOANS

Capital loans are those advanced for the acquisition of "fixed" or long-term assets. Loans made for the purchase of machinery and equipment by manufacturers, of counters, shelves, showcases, and delivery trucks by merchants, and of plows, tractors, harvesters, fencing, and other equipment by farmers—all these are types of capital loans. Advances made for the acquisition and improvement of land and buildings to be used for productive purposes are also included as capital loans. In a certain sense, loans for the purchase of all such assets are "self-liquidating," since the manufacturer, merchant, or farmer expects the income from the sale of his products over a period of time to be sufficient to cover the cost of the assets, for "depreciation" of long-term assets is universally included as a cost of production. Such loans, however, are not self-liquidating in the generally recognized sense of the term, because of the long period of time which must elapse before the returns from sales will cover the cost of the assets.

Commercial banks often make capital loans voluntarily, and frequently involuntarily. They make capital loans voluntarily when they are aware that long-term assets are to be purchased with the credit advanced, and they agree to its disposition. Traditionally, commercial banks have limited their loans for long-term capital purposes to a small proportion of their total loans; but in recent years they have more willingly supplied credit for capital expansion. Banks grant such loans involuntarily when funds ostensibly to be used by the borrowers in current production are devoted instead to the acquisition of capital assets. A borrower may state that he wants credit for current purposes; but, after the loan is granted, he may decide to use the

credit instead for the purchase of a new machine or a new delivery truck. In many such instances, of course, the borrower is likely to ask for an extension of the loan at maturity—and possibly for many extensions before it is finally repaid.

INVESTMENT LOANS

The investment loans granted by commercial banks are of three types: (1) loans to investment banking houses for the flotation of new bond and stock issues; (2) call and time loans to brokers and dealers who operate in the securities markets; and (3) direct loans to individuals who want to buy securities "on margin."

In undertaking to float issues of securities for corporations and governmental bodies, investment banking houses generally agree to pay the issuers for all the securities at a stipulated price immediately, expecting to reimburse themselves by selling the securities to investors. To make the immediate lump-sum payments, the investment banking houses frequently call upon the commercial banks for loans to be repaid when the securities are sold. These loans are usually safeguarded by the pledge of the securities themselves, although other collateral may be required.

Individual investors may borrow either from their local banks or through brokers and dealers when buying securities on margin. When brokers and dealers assume responsibility for the financing, they customarily obtain the necessary funds from the commercial banks. Many investors prefer to borrow directly from their local banks, leaving the securities bought as collateral for the loans. Such loans are not self-liquidating, since the securities acquired are likely to be long-term issues, or even perpetual in character, as in the case of many stocks. Nevertheless, direct security loans are not made for long periods of time, for those who borrow to buy securities are speculators who expect to be able, through later sales at higher prices, to pay off the loans with interest and to have a profit remaining for themselves.

In granting investment loans of the second and third types mentioned above, commercial banks must observe the requirements of Regulation U as promulgated by the Board of Governors of the Federal Reserve System under authority of the Securities Exchange Act of 1934. This regulation establishes "maximum loan values" for stocks listed on national security exchanges and limits individual loans for "purchasing and carrying" such stocks to the designated loan values. The board's Regulation T imposes similar restrictions upon brokers and dealers in securities when they relend to their customers funds which they have borrowed from the banks. The purpose of the regulations is to control the use of commercial bank credit for stock market speculation.²

² For further details, see below, pp. 276, 447-449.

CONSUMPTION LOANS

Consumption loans are made to individuals for such purposes as the purchase of homes, household furniture, radios, mechanical refrigerators, and pleasure automobiles, the meeting of the costs of medical care, and the payment of tuition at schools and colleges. As the use to which a consumption loan is put brings no direct financial returns, the borrower must find some independent means to repay. In making consumption loans, therefore, a bank relies upon the integrity of the borrower and upon his income-earning capacity. People who buy homes, household equipment, and automobiles with borrowed money are, in a real sense, spending their future income; hence any evaporation of sources of income greatly reduces the likelihood of repayment.

Before 1930, the commercial banks looked askance at the business of lending to individuals for consumption expenditures. While refusing to make the loans directly, many bankers were quite willing to make loans to the sales finance companies and to small loan institutions, which themselves were financing consumers. The decline in the demand for commercial loans, however, has led many commercial banks to venture further and further into the field of consumption credit; and in the past decade, scores of commercial banks have opened "personal loan departments."³

LOANS OF MEMBER BANKS

Information with respect to the loan portfolios of member banks of the Federal Reserve System is presented in Table 22. While the amounts and percentages of all member banks combined are of interest, the breakdown for the three classes of member banks is more significant. Attention may well be directed to certain facts disclosed by the data: the outstanding importance of commercial and industrial loans in the portfolios of the banks of the central reserve and reserve cities, and their smaller significance to the country banks; the strong dependence of country banks upon real-estate loans; the concentration of security loans in the central reserve cities; and the concentration of agricultural loans in country districts.

Loan Instruments

PROMISSORY NOTES

Borrowers' Notes.—Most people who borrow from the commercial banks are required to sign promissory notes which serve as evidence of the loan transactions. The notes promise repayment on demand or at a specified

³ In the fall of 1941, a special group of restrictions—embodied in Regulation W of the Board of Governors of the Federal Reserve System—were imposed upon commercial banks and other lenders when advancing funds for consumption purposes. The restrictions were designed to reduce the demand for consumption goods during the war, so that more and more of our industrial facilities could be devoted to the production of war materials. Many of the restrictions were removed and the remainder substantially relaxed by action of the Board of Governors which became effective on December 1, 1946. See below, pp. 451, 580-581.

TABLE 22
 TYPES OF MEMBER BANK LOANS OUTSTANDING, DECEMBER 31, 1945
 (Dollar amounts in millions)

Types of loans	All member banks		Central reserve city banks of New York		Central reserve city banks of Chicago		Reserve city banks		Country banks	
	Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent
Commercial and industrial ..	\$8,949	39.3	\$3,044	41.5	\$760	57.0	\$3,661	43.0	\$1,484	26.5
Agricultural	855	3.8	—	—	2	.2	205	2.4	648	11.6
Investment:										
To brokers and dealers.....	3,133	13.8	2,453	33.4	211	15.8	427	5.0	42	.8
To others	3,378	14.8	1,172	16.0	233	17.5	1,503	17.7	471	8.4
Real estate	3,455	15.2	80	1.1	36	2.7	1,459	17.1	1,881	33.6
Consumption	1,900	8.3	287	3.9	51	3.8	855	10.0	707	12.6
All others	1,104	4.8	298	4.1	40	3.0	404	4.8	363	6.5
Totals.....	\$22,775	100.0	\$7,334	100.0	\$1,333	100.0	\$8,514	100.0	\$5,596	100.0

Source: Derived from *Federal Reserve Bulletin*, May, 1946, p. 508.

future time. Demand notes are most frequently used when advances are granted to borrowers for the purchase of investment securities; not only does the bank have the right to ask for repayment whenever it chooses, but the borrowers also may repay whenever they so desire. Demand loans, of course, may remain outstanding for lengthy periods, as long as the borrowers pay interest when it is due and continue to satisfy the bank as to their ability to repay.

Most loans made for other purposes are for specific periods of time, generally of short duration. Even when a banker does not expect repayment until the expiration of a relatively long period of time, say a year, he may nevertheless require that a note maturing in three months be signed, at the same time assuring the borrower that it will be renewed. In this way, the banker is able to "follow up" the loan more closely and assure himself that the funds are being used properly.

A note having only the signature of the maker and no indorsements is known as a single-name instrument, because the borrower alone is responsible for its payment.

Discount of Other Notes.—Sometimes other loan instruments are used. In some lines of business, it is customary for buyers of goods to give the sellers promissory notes, instead of having the transactions merely recorded in ledger accounts. The holder of customers' notes of this kind may indorse them and have a bank discount them, that is, advance their present value. In consequence, the original maker of each note would be primarily liable, and the borrower as indorser would be secondarily liable; hence such a note is known as a double-name instrument.

When debtors fail to pay their book accounts at the proper time, creditors sometimes require them to sign promissory notes for the amount due. The acceptability of such double-name paper for discount at the commercial banks obviously depends more upon the reputation and financial status of the indorser than upon the credit position of the maker, who is primarily liable.

DRAFTS AND ACCEPTANCES

Other double-name instruments are the trade acceptance and the commercial draft. These are alike in most respects. Such an instrument is drawn by a creditor against a debtor and orders the latter to pay to the order of a designated party or to bearer a specific sum of money on demand or at a designated future time. The creditor himself may be the designated party (the payee), or a bank which acts as collection agent or which discounts the instrument may be named as the payee. A commercial draft may be used for any type of transaction, as when a debtor has failed to pay a book account within the time allowed. A trade acceptance, on the other hand, bears a statement upon its face that it originated in a genuine merchandise transaction; it is supposed to be drawn, therefore, by a seller of goods upon

the buyer. Trade acceptances are usually classified as self-liquidating instruments, because the sale of the merchandise should provide the funds with which they may be paid at maturity.

A commercial draft may order the debtor (the drawee) to pay on demand, in which event to accept the draft is to pay it. Again, a commercial draft or a trade acceptance may be drawn for payment at some future time, and the drawee indicates his willingness to fulfill the terms of the instrument by writing the word *accepted*, the date, and his signature across the face. Holders of accepted drafts and trade acceptances may ask the banks to discount them, and the banks, if they do so, rely upon the credit of the drawees, who accepted the instruments and who are primarily liable, and upon the credit of the drawers, who are secondarily liable.

ACCOMMODATION PARTY

A promissory note or other loan instrument may gain an additional name by the signature of an accommodation maker or indorser. An accommodation party signs or indorses the instrument to guarantee the good faith of the maker or acceptor, as the case may be, and in general agrees to make payment upon the instrument if others obligated fail to do so.

Security for Bank Loans

Loans granted by commercial banks may be fully secured, partially secured, or totally unsecured. Security, in this use, means the pledging of property by the borrower to the bank under such terms that, should the borrower fail to fulfill his obligation, the bank may sell the pledged property to reimburse itself. The property pledged may actually be in the possession of the bank, in the hands of the borrower, or even in the hands of a third party. Whether or not security is required by a bank depends upon the nature of the loan transaction and, more importantly, upon the credit status of the borrower. It is now generally realized that a loan which ostensibly has been fully secured may be lost in whole or in part because of a collapse in property values, such as occurred in 1929 and the early 1930's. On the other hand, an unsecured loan granted to a concern of sound reputation and strong credit position may be of the very highest quality.

TYPES OF ASSETS PLEDGED

Stocks and Bonds as Security.—Many kinds of property may be pledged as security for loans. In the case of investment loans, the security is almost invariably the stocks and bonds for the purchase of which the loans are granted. But stocks and bonds are frequently pledged for other types of loans. A businessman who borrows to buy merchandise may well pledge government bonds which he owns as a personal investment. A corporation which borrows to buy capital equipment may pledge the stocks which it

holds in a subsidiary concern. Stocks and bonds are conveniently passed from hand to hand for pledge purposes, and the banks may readily dispose of them and reimburse themselves if they are refused payment when loans mature.

Pledge of Commodities.—Commodities may also be pledged by borrowers as security for bank loans. By the use of certain kinds of convenient instruments, borrowers may pledge commodities while at the same time retaining possession of them for purposes of manufacture or sale. In buying raw materials for industrial purposes, for example, a manufacturer may give a bank a title to them by means of a *trust receipt*. The trust receipt gives the bank a first claim upon the funds received when the goods are sold, and the manufacturer acts as trustee for the bank in selling them. Should the manufacturer use the proceeds of the sale for some other purpose, he would be guilty not only of a breach of contract, but also of the crime of taking another's property for his own use.

Additionally, commodities may be "put up" as security by means of bills of lading, warehouse receipts, cotton tickets, and other similar documents. All these instruments give to the parties named therein the right to claim the goods; hence should borrowers fail to meet the terms of their contracts, the banks may obtain the goods and sell them to reimburse themselves. A merchant who borrows from a bank to pay for a shipment of goods may turn over to it the bill of lading which he receives from the seller. Upon the arrival of the goods, the bank would ordinarily surrender the bill of lading in exchange for a trust receipt. Again, growers of wheat, cotton, and other staples who desire to store their produce for a time in anticipation of an improvement in market prices may borrow from the banks to carry on their normal operations by pledging the warehouse receipts as security for their loans.

Receivables as Security.—Commercial paper and book accounts may be pledged to safeguard bank loans. In regard to double-name paper, we mentioned the fact that a borrower might obtain a loan on promissory notes and accepted drafts received from his customers by indorsing them and asking the bank to discount them. The borrower, however, might prefer to obtain the loan on his own promissory note, at the same time pledging his customers' notes and accepted drafts as security for the loan. Again, the borrower might pledge his accounts receivable, that is, his book accounts in which he records the claims that he has against his customers. Although the commercial banks, as a group, long looked with disfavor upon "accounts receivable financing," many have greatly extended their operations in this direction in recent years; and one is likely to notice with increasing frequency bank advertisements inviting businessmen to borrow upon the security of their book accounts.

Chattel and Real Mortgages.—Chattel and real mortgages may be acceptable to the banks which demand security for their loans. Chattel

mortgages may be placed upon personal property—a classification which includes all kinds of movable property; and real mortgages may be placed upon real estate, that is, land and buildings and those things more or less permanently attached thereto.

Chattel mortgages on machinery, on factory equipment, on store equipment, on delivery trucks, and the like are frequently taken by banks when they make loans for the acquisition of those facilities. In many cases, too, the banks, in granting consumption loans for the purchase of pleasure vehicles, refrigerators, household furniture, and so on, require the borrowers to give chattel mortgages on such property.

Real-estate mortgages are ordinarily required only when banks grant loans for the purchase of land and buildings, for the erection and renovation of buildings, for the improvement of land, and for similar purposes, both productive and consumptive. But real-estate mortgages may also be accepted as security for loans for other uses, and they may even be taken when banks make large loans for current operations to business firms.

Government Guaranty of Loans

A type of safeguard for loans granted by commercial banks distinct from the "security" discussed in the foregoing paragraphs is found in government guaranties. Although the pledging of a government's credit for the satisfaction of obligations of private parties is by no means new, an extremely significant extension of this kind of governmental activity has taken place in recent years. Several types of loan transactions for which government guaranties have been made available may be briefly discussed at this time to indicate the scope of such guaranties.

Under the terms of the National Housing Act of June 27, 1934, and its amendments, the Federal Housing Administration, an agency of the federal government, insures commercial banks and other financial institutions against loss upon loans granted to private borrowers for the acquisition and construction of houses, apartment buildings, and other residential property, and for the repair, alteration, and improvement of residential property. To enjoy the protection of insurance for its real-estate loans, a lending institution must be able to satisfy the standards which the Federal Housing Administration has established with respect to maturities, installment payments, rates of interest, type of construction, and the like.

An executive order of President Roosevelt of March 26, 1942, authorized the War and Navy Departments and the Maritime Commission to guarantee loans extended by financial institutions to provide working capital to producers of war materials. The purpose of the executive order was to make bank credit easily accessible to businessmen who were capable of completing war contracts but who, because of "peacetime restrictions," were unable to arrange the necessary financing. Loans for war production could be guaranteed by arrangement with the federal reserve banks, which were named

fiscal agents of the three military agencies. Commercial banks and other financial institutions were encouraged to make loans to their customers according to their usual procedures; but if, because of extraordinary risks involved, they would be unwilling to lend in the customary manner, they were expected to apply to the reserve banks for guaranties. Loans to provide working capital for the production of war materials could be guaranteed partially or in full, but the larger the coverage of the guaranty, the less were the earnings of the banks, since they were required to pay to the reserve banks as a fee a graduated percentage of the interest charged on the loans. In September, 1943, and subsequently, the regulations were liberalized to permit the three military agencies to guarantee so-called "termination loans"—loans designed to release working capital to enterprisers for reconversion to peacetime operations following the cancellation of their war contracts and pending the settlement of such contracts. It was widely recognized that the uncertainty and anxiety of businessmen respecting their financial capacity speedily to change over to peacetime production upon the conclusion of the war might well result in a premature curtailment of war production; hence the guaranty of termination loans was regarded as essential to assure the availability of working capital for reconversion.

Still other facilities for the guaranty by the federal government of loans granted by commercial banks and other financial institutions were established by the Servicemen's Readjustment Act of June 22, 1944, and its amendments. By the terms of this legislation—popularly known as the "G.I. Bill of Rights"—the Administrator of Veterans Affairs is authorized to guarantee or insure all kinds of lenders against loss to the extent of 50 per cent of funds advanced to eligible veterans for the acquisition, construction, and repair of homes for their own use, farms and farm equipment, and business facilities. For each veteran, the maximum guaranty or insurance coverage is limited to \$4,000 on real-estate loans, and to \$2,000 on loans of other types.

Credit Analysis

In granting loans amply secured by the pledge of assets, banks may be quite liberal without really assuming any risks. But if no assets are pledged, or if the value of the assets pledged is less than the amount loaned, the banks must exercise greater caution. In making unsecured and partially secured loans, a bank must depend upon the willingness of the borrower to repay, and such willingness depends, in turn, upon the personal integrity of the borrower as well as upon his financial position. One cannot be considered without the other. Even a person who is scrupulously honest may be unable to repay because of adverse financial conditions; and a person in good financial position, if he lacks integrity, may try in numerous ways to avoid payment.

A banker is ordinarily able to tap several sources of information in

evaluating the reputation and financial position of the prospective borrower. The most important of these are the following: (1) the banker's personal knowledge of the borrower's affairs; (2) the analysis of the borrower's financial statements; and (3) the data furnished by credit rating agencies, chambers of commerce, other banks, and similar sources.

PERSONAL KNOWLEDGE OF BORROWERS' AFFAIRS

Because of their influential position, the officers of a bank which operates in a relatively small community normally have a reasonable knowledge of the credit position of many likely borrowers. It is their duty to be conversant with the operations of all important firms and businessmen, even though at the moment they may not be in the market for loans. If a prospective borrower has been a long-term customer of the bank, having obtained frequent loans and made repayments, the problem of credit analysis is obviously not a difficult one, although, even in such instances, a review of the borrower's financial position may be undertaken to ascertain whether or not it has deteriorated.

ANALYSIS OF FINANCIAL STATEMENTS

A more mechanical means of arriving at a decision as to the soundness of a prospective borrower's credit position is by the analysis of his financial statements. Banks customarily require each applicant for a loan to file on special forms a recent statement of assets and liabilities, and a statement of income and expenses for the last operating period. Banks find it desirable also to obtain copies of statements for the preceding few years, so that they may be compared with the current statements.

Current Assets and Liabilities.—In examining the statement of assets and liabilities, the banker is likely to be most interested in the "current" or "working capital position" of the prospective borrower, that is, the relationship between his current assets and current liabilities. A current asset is one which is already in the form of cash or which will be converted into cash in the course of, say, a year; a current liability is one which must be paid within the same period of time. If the banker is asked to grant a short-term loan, he focuses his interest upon the current position because he must expect payment out of the current assets, and because his claim must be joined with those of other creditors, shown as current liabilities. A reasonable excess of current assets over current liabilities, therefore, would likely assure a safe extension of credit, while a negligible margin would likely indicate a considerable risk.

Not only must the totals of current assets and current liabilities be considered, but also the distribution of accounts in each of these groups. The current asset accounts include cash itself, accounts receivable from customers, notes receivable from customers, the inventories, and other short-term receivables, such as interest earned but not yet received. In most types of

businesses which sell on credit terms, the inventories are first converted into accounts receivable, and then the accounts receivable are converted into cash as collections are made. Thus large accounts receivable and relatively small inventories generally indicate a sounder condition than the converse. A large volume of notes due from customers among the current assets may indicate that the borrower's customers are not meeting their obligations promptly, unless, perhaps, it is an accepted policy in his line of business to require customers to sign promissory notes. The current liabilities include accounts payable to creditors, notes payable to creditors, and expenses coming due in the near future, such as obligations for wages, taxes, and interest. A large volume of notes payable may suggest that the prospective borrower, because of failure to pay his obligations promptly, has been required to give notes as evidence of his indebtedness.

Long-Term Assets and Liabilities.—A banker ordinarily gives some attention to the long-term assets and liabilities of the applicant, as well as to the capital accounts which represent the applicant's investment in his own enterprise. The prospective borrower's ownership of land, buildings, machinery, and other kinds of permanent equipment may be taken into consideration, but usually the banker does not expect to rely upon such assets for payment, and they therefore represent only a means of payment of last resort. Similarly the long-term liabilities ought not to interfere with the current prospects of repayment, since the banker expects to be repaid long before they fall due. Interest coming due upon long-term liabilities is listed, of course, among the current liabilities.

The ratio of the capital accounts to the total liabilities is of great interest in statement analysis. The capital accounts represent the "equity" of the proprietor in the business, and the other liabilities, so to speak, represent the interests of outsiders. If the ratio is high, therefore, it means that the proprietor has a large stake in the enterprise and has every reason to operate it conservatively; if small, he may be willing to take extreme risks.

Use of Ratios.—Many types of averages and ratios may be calculated on the basis of the figures which appear in the prospective borrower's statement of assets and liabilities and in his income statement. If it is possible to analyze statements for several years, changes in the averages and ratios may supply reasonable evidence that the borrower's financial position is improving or deteriorating. Credit departments of banks usually have on hand typical or standard ratios for different types of businesses, and these may be used in comparison with those calculated from the borrower's statements to determine whether his situation is superior or inferior.

Regulation of Bank Lending in the United States

National and state governments have incorporated in their banking laws many limitations and restrictions upon the loans granted by banks

chartered within their respective jurisdictions. The regulations tend to become rather complex, and they require constant interpretation. This very complexity makes it impossible to survey here all the varieties of regulations in force in all parts of the country, but the more important regulations which apply to national banks (and which, in some instances, are extended to state member banks of the Federal Reserve System) may be reviewed as being fairly typical.

TEN PER CENT RULE

The most important restriction pertinent to the lending operations of national banks is the rule that they must not lend more than an amount equal to 10 per cent of their capital and surplus to any person, partnership, association, or corporation. This rule applies chiefly to loans made on customers' own promissory notes, whether or not they are safeguarded by the pledge of assets. In the application of this provision, loans made to the several members of a partnership are regarded as loans to the partnership; and loans made to corporate subsidiaries where the parent company owns or controls a majority interest are regarded as loans to the parent company itself. The liability of borrowers as indorsers or guarantors of negotiable instruments, except for accommodation indorsements, is included in the 10 per cent limitation.

Exceptions to the 10 Per Cent Rule.—There are many exceptions to the 10 per cent rule. No limit applies to the following classes of loans: (1) discounts of "drafts or bills of exchange drawn in good faith against actually existing values," as when a creditor draws drafts against his debtors and discounts them at his bank; (2) discounts of commercial or business paper owned by the person or organization discounting it, but with other parties as the principal obligers; (3) discounts of obligations secured by goods or commodities in the process of shipment, such as trade acceptances; (4) the purchase by one bank of acceptances of other banks; and (5) loans made to national and state banks, to bank receivers and conservators, and to superintendents of banking (in exchange for the business or property of any bank), subject to the approval of the Comptroller of the Currency.

Loans in an amount equal to 15 per cent (in addition to the basic 10 per cent) of a national bank's capital and surplus may be granted to borrowers who discount notes other than commercial or business paper; such notes must be owned by the borrower, must have his indorsement or guaranty, and must mature within six months. An additional 15 per cent of a bank's capital and surplus over and above the basic 10 per cent may also be loaned on obligations secured by shipping documents for livestock or by liens upon livestock. An amount up to 25 per cent of a bank's capital and surplus may be loaned to a single borrower on his own notes secured by obligations of the United States government, provided that the face value of the government obligations is at least equal to the amount loaned; loans

of this character, however, may be granted only to an additional 15 per cent if the basic 10 per cent has been used, or the 15 per cent may be increased by as much of the basic 10 per cent as has not been used.

Loans equal to 40 per cent of a national bank's capital and surplus, in addition to the basic 10 per cent, may be granted upon obligations secured by shipping documents, warehouse receipts, or other such instruments conveying or securing title to readily marketable nonperishable staples. The property must be fully insured, and the security provided must be in excess of the total amount of the loans according to a progressive schedule.

OTHER LOAN REGULATIONS

Loans to Affiliates.—National banks and state banks members of the Federal Reserve System are limited in the amount that they may lend to their "affiliates." Affiliates include corporations which hold a controlling stock ownership in the lending bank, corporations which the lending bank controls through stock ownership, and corporations which with the lending bank are simultaneously controlled by a parent company. The member bank is not permitted to lend an amount in excess of 10 per cent of its capital and surplus to any one affiliate, or more than 20 per cent in total to all its affiliates. The loans, moreover, must be secured by the deposit of collateral. If bonds of the federal government or the securities of certain federal corporations are deposited, their face value must be at least equal to the amount of the loans; if securities of state and local governments, their face value must exceed by at least 10 per cent the amount of the loans; and if other types of securities, their face value must exceed by at least 20 per cent the amount of the loans. Furthermore, a loan to an officer, director, employee, or representative of an affiliate is regarded as a loan to the affiliate itself when the proceeds are to be used for its benefit.

The foregoing limitations, however, do not apply to those affiliates which are engaged principally in foreign banking, those whose sole function is to own the bank's premises, those which are engaged in the safe-deposit business, those which are engaged solely in holding obligations of the United States government, and a few other types.

Loans Contrary to the Public Interest.—As a means of safeguarding the public welfare, national banks are not permitted to make loans on the security of their own outstanding stock placed as collateral. Such a regulation prevents an insidious impairment of a bank's capital such as occurred so frequently before the Civil War when subscribers "paid" for their stock by borrowing from the bank itself and leaving the stock as collateral.

Also as a matter of public policy, every national bank and state member bank is forbidden to make loans to its executive officers unless each loan is approved by the board of directors and the total advanced to any officer does not exceed \$2,500. Moreover, an executive officer who borrows at another institution must make a written report to his own board of directors

stating the amount borrowed, the date of the loan, the collateral provided, and the purpose of the loan.

Other regulations to safeguard the public interest are those which forbid the lending of trust funds to the officers, directors, and employees of the banks concerned; those which prohibit the making of loans and the giving of gifts to bank examiners; and those which forbid officers, directors, and employees to accept payment from prospective borrowers for their services in arranging loans.

Real-Estate Loans.—Before the adoption of the Federal Reserve Act, national banks were not permitted to make loans upon the security of real estate; but that legislation and subsequent amendments to the national banking laws opened the way for such loans subject to certain restrictions. In accordance with a general limitation, a national bank may not lend on real-estate mortgages in the aggregate more than an amount equal to its total capital and surplus, or to 60 per cent of its time deposits, whichever amount is greater.

Regarding individual loans, a national bank may lend up to 50 per cent of the appraised value of improved real estate on a first mortgage provided that the loan matures in five years or less; or up to 60 per cent of the appraised value on a first-mortgage loan maturing in ten years, if the contract provides for the repayment of at least 40 per cent of the loan in installments during that period.

Most of the real-estate loans which are insured by the Federal Housing Administration and most of those guaranteed or insured by the Veterans Administration are exempt from the limitations respecting individual loans; likewise, loans advanced for the construction of residential and farm buildings maturing within six months are classified as of a commercial character and are not subject to the foregoing limitations.

INTEREST REGULATIONS

Federal banking laws also limit the rates of interest which national banks may charge upon their loans. The general rule is that a national bank may charge the rate permitted by the state in which it is located, or a rate 1 point higher than the federal reserve discount rate on ninety-day commercial paper, whichever of these is greater. If the state government has not stipulated a legal rate for bank loans, then a rate of 7 per cent may be substituted in the foregoing general rule. A national bank does not violate the law if, in addition to charging the maximum rate of interest permitted, it makes reasonable service charges for credit investigations, collection of installment payments, examination of titles, and similar operations.

Should a national bank charge interest at a rate in excess of that permitted, the full interest receivable would be forfeited; and in the event that the interest has already been paid, the borrower would have the right to recover twice the amount.

Chapter 17

SECONDARY RESERVES AND THE MONEY MARKET

The Nature of Secondary Reserves

Because their primary reserves ordinarily amount to only a minor fraction of their total demand and time deposits, commercial banks generally find it advisable to hold a portion of the remaining assets in the form of securities which can be easily converted into hand-to-hand money without appreciable loss. Such securities, because of their purpose, are called secondary reserves. In recent years, when commercial banks have had easy access to central banking institutions for additional credit, emphasis upon the need of secondary reserves has not been so strong as it was before the central banking facilities were developed. If a central bank is willing to lend freely, the individual commercial bank may look to it to replenish its primary reserves in time of need. In the United States, for example, a member of the Federal Reserve System may rediscount with its district reserve bank any eligible commercial paper which it possesses; it may borrow for short periods on its own note secured by commercial paper or the obligations of the federal government; and, indeed, it may borrow, at a slightly higher discount rate, on the security of any of its assets which are acceptable to the reserve authorities.

Regardless, however, of the facilities provided, most bankers in the United States do not like to borrow heavily from the federal reserve banks. The average banker prefers to operate upon his own resources so far as possible. He is likely, therefore, still to be interested in maintaining a sizable portfolio of secondary reserve assets which he may convert into primary reserves if that action is found necessary. In this way, he is able to meet all requirements of his depositors without calling upon the reserve banks.

Whether a bank's secondary reserves should be abundant or meager depends largely upon its primary reserve ratio. When the primary reserve ratio is large, as it has been for most banks in recent years in the United States, the bank can feel reasonably safe in investing a large portion of its remaining assets in loans and securities which are not immediately convertible into primary reserves. Contrariwise, when the primary reserve ratio

is small, a large portfolio of secondary reserves assets may be thought necessary for the safety of the bank.

TESTS FOR SECONDARY RESERVE ASSETS

To be included among the secondary reserves, an asset must be of a type quickly convertible into hand-to-hand money in time of need. The conversion may occur by the coming of the asset to maturity, or it may be accomplished by an immediate sale. Hence "liquidity" and "marketability" are to be emphasized. An asset is said to possess the characteristic of *liquidity* if its maturity is short and if there is every assurance that it will be paid off at maturity; and the characteristic of *marketability* if it may be sold in a very short period of time, usually within a day or two at the most. Some assets are both liquid and marketable—and they are secondary reserves of the choicest quality—while others possess only the one characteristic or the other. Assets which are merely marketable are usually regarded as inferior to those which are liquid, since, in times of crisis, the former may lose their marketable character if all the banks attempt to sell simultaneously. When, however, a bank invests in liquid assets whose maturities are properly spaced, it can be assured of a constant flow of funds into its primary reserves.

The application of the concept of marketability to secondary reserve assets, it should be emphasized, assumes that such assets should be salable at no appreciable loss. Almost any asset can be sold quickly if the seller is willing to accept a sacrifice price. If heavy losses were occasioned in the sale of secondary reserve assets, their previous earnings might well be completely wiped out—so that it would have been wiser to hold the resources as primary reserves in the first place. In addition, the bank might find that its reliance upon the secondary reserves had been misdirected. If, for example, assets valued on the books at \$100,000 are sold for \$75,000, not only is the loss itself difficult to bear, but also the bank has \$25,000 less of primary reserves than it expected to have to meet the withdrawals of its depositors.

Secondary reserve assets are expected to provide a reasonable rate of return commensurate with safety. Safety, of course, must take precedence over earnings, and a low rate of return may have to be accepted in the interests of safety. If, however, the secondary reserves make no contribution, by way of earnings, in meeting the expenses and the dividend requirements of the bank, the funds invested would better be kept in the form of vault cash. Rates which have prevailed in recent years upon various kinds of secondary reserve investments are presented in Table 23.

Liquidity of Direct Bank Loans.—In applying tests to adjudge the soundness of specific assets for secondary reserve purposes, one immediately faces the question whether some of a bank's direct loans to its customers may properly be included among the secondary reserves. In the preceding chapter, certain types of direct short-term loans—such as those made to

manufacturers to buy raw materials and to meet pay rolls, and those made to merchants to purchase finished goods—were described as “self-liquidating.” To the extent that the bank is certain that such loans will be paid off at maturity, it is reasonable to include them among the secondary reserves.

Too often, however, the bank cannot be sure that the primary reserves derived from the repayment of its direct loans will be available for other purposes. Good customers of a bank often think themselves entitled to have loans outstanding more or less continuously; and if they repay at maturity,

TABLE 23
INTEREST RATES ON SECONDARY RESERVE INVESTMENTS,
SELECTED YEARS, 1920-1945

(Average rates per annum)

Year	Prime bankers' accept- ances (90 days)	Prime commer- cial paper (4-6 months)	Stock exchange call loan renewals	Stock exchange time loans (60-90 days)	U.S. treasury bills (3 months)	U.S. treasury certifi- cates (9-12 months)	U.S. treasury notes ^a (3 5 years)
1920	6.06	7.37	7.78	8.04	—	—	—
1924	2.97	3.91	3.08	3.58	—	—	—
1927	3.45	4.01	4.06	4.27	—	—	—
1929	5.03	5.78	7.61	7.72	—	—	—
1931	1.58	2.64	1.74	2.05	1.402	—	—
1933	.60	1.87	1.18	1.03	.515	—	2.66
1934	.25	1.14	1.00	.88	.256	—	2.12
1935	.13	.91	.56	.57	.137	—	1.29
1936	.16	.75	.91	1.16	.143	—	1.11
1937	.42	.95	1.00	1.25	.447	—	1.40
1938	.44	.81	1.00	1.25	.053	—	.83
1939	.44	.59	1.00	1.25	.023	—	.59
1940	.44	.56	1.00	1.25	.014	—	.50
1941	.44	.54	1.00	1.25	.103	—	.73
1942	.44	.66	1.00	1.25	.326	—	1.46
1943	.44	.69	1.00	1.25	.373	.75	1.34
1944	.44	.73	1.00	1.25	.375	.79	1.33
1945	.44	.75	1.00	1.25	.375	.81	1.18

^a On tax-exempt issues, 1933 to 1940; on taxable issues, 1941 and after.

Source: Board of Governors of the Federal Reserve System, as published in its annual reports and in the *Federal Reserve Bulletin*.

they expect to be able to borrow soon again. Many borrowers, moreover, anticipate the renewal of their loans at maturity. In times of emergency, many borrowers are likely to run into difficulties in meeting their obligations even upon loans which are properly described as self-liquidating; and, indeed, the very emergency may prompt them to ask for increased accommodations. In general, then, in accumulating its secondary reserve portfolio, the bank must usually look to indirect or impersonal types of loans and investments.

Impersonal Loans and Investments.—Indirect or impersonal loans and investments are made in the open market by the purchase of "paper" and securities offered for sale there. Included among short-term impersonal "paper" are bankers' acceptances, open-market commercial paper, call and time loans to brokers, and the short-term obligations of governmental bodies. Such short-term loans make good secondary reserve assets because there is almost perfect assurance that they will be paid off at maturity; and a bank may invest in paper having varying maturities, so that some of it comes due periodically.

Some types of long-term securities are also often regarded as acceptable for secondary reserve portfolios, not because they are to be paid off in the near future, but because a ready market for them exists. In this group are included some government bonds, particularly those of the federal government, and the high-grade bonds of some corporations. The conversion of such bonds into primary reserves is possible, it may be repeated, because they are readily marketable rather than liquid. The limitations of marketability as contrasted with liquidity are evident in critical times, for the simultaneous attempt of all banks to convert their secondary reserves into primary reserves by sale is likely to result in a disastrous "break" in market prices.

THE MONEY MARKET

Transactions in bankers' acceptances, commercial paper, loans to brokers, and short-term government paper are handled in the *money market*. The money market comprises all the facilities of the country for the borrowing and lending of money for short periods of time. Obviously all the commercial banks must be regarded as operators in the money market, since many of their principal operations are concerned with the making of short-term loans. For this reason, it is advisable to think of the money market as having two divisions: the direct or personal market, on the one hand, and the impersonal or "open" market, on the other. When the term *money market* is used without qualification, it is usually the open market to which reference is made.

Loans granted by a bank direct to its customers are personal in nature. The borrower usually applies to the bank in person; he submits to it information respecting his financial position, the purpose of the loan, and his capacity to repay; and he bargains with respect to the maturity of the loan and the rate of interest to be paid. Banks, however, may make loans to businessmen, to corporations, and to governmental bodies without direct contact. Such loans are said to be made in the open market, and, as they are usually negotiated through middlemen, the banks and the borrowers do not meet. The loan transactions are quite impersonal.

The open money market itself is informally organized. There is no common meeting place at which the middlemen come together, as in the

buying and selling of securities on the stock exchanges. Negotiations between borrowers, lenders, and middlemen are carried on by means of the telephone, the telegraph, and the mails, and sometimes through the employment of agents hired by the middlemen.

The Acceptance Market

NATURE OF BANKERS' ACCEPTANCES

A banker's acceptance may be described as a draft which is drawn by an individual or firm upon a bank ordering it to pay to the order of a designated party or to bearer a certain sum of money at a specified time in the future, and which is accepted by the bank. In nature, therefore, an acceptance differs from a check only in that the former is payable at a future date and the latter is payable on demand.

Bankers' acceptances are used chiefly in financing the movement of goods in international trade, although they may also be used for the domestic shipment and storage of goods. Of the estimated \$163,000,000 of acceptances outstanding in the United States at the end of March, 1946, for example, \$104,000,000 had originated in import transactions, \$17,000,000 in export transactions, less than \$500,000 in the creation of dollar exchange,¹ \$33,000,000 in the shipment and storage of goods within the United States, and \$8,000,000 in the storage of goods within foreign countries and in shipments between foreign countries.²

USE OF BANKERS' ACCEPTANCES

Origin of the Draft.—An illustration will show how a banker's acceptance originates. Let us say that an American firm is buying a shipment of textiles from a British firm, that the payment is to be made in dollars, and that the British exporter requires the American importer to obtain a commercial letter of credit from an American bank. The British exporter could require the American importer to pay cash before the goods were shipped, but such terms might not be acceptable to the importer. Again, the exporter could draw a draft directly upon the American firm, but the latter's acceptance and promise to pay would not likely be valued so highly as the acceptance of a reputable American bank.

The American importer goes to his bank—in New York City, let us say—and asks that the letter of credit be issued in favor of the British exporter. The letter of credit is an authorization to the exporter to draw the draft. When the importer obtains the letter of credit, he signs a contract in which he agrees to make payment to the bank in time to meet the acceptance at maturity. When the British exporter receives the letter of credit, he delivers the textiles to the shipping company and receives in return

¹ For an explanation of this use of acceptances, see below, pp. 492-493.

² *Federal Reserve Bulletin*, May, 1946, p. 514.

a bill of lading which gives the holder the right to obtain the goods when they are delivered in the United States. He then draws the draft and takes it, together with the bill of lading and the letter of credit, to his bank in England. He may merely request the bank to collect the payment for him, but more likely he will ask the bank to discount the draft, that is, to give him the present value in British money, so that he may have the means with which to go on with his regular business operations.

Draft Becomes an Acceptance.—After the British bank discounts the draft, it sends it, still accompanied by the bill of lading and the letter of credit, to its correspondent bank in the United States. The correspondent bank then presents all documents to the American bank which issued the letter of credit. If all terms of the transaction have been properly fulfilled, the American issuing bank writes its acceptance across the face of the draft with the date and the signature of a responsible officer; by this action, the bank agrees to meet the draft at maturity. At that moment the draft becomes a banker's acceptance.

The accepting bank keeps the bill of lading and files away the letter of credit which has now served its purpose. Usually the bill of lading is given to the importer in exchange for a trust receipt.³

Disposal of the Acceptance.—Suppose that the acceptance is due sixty days after sight, that is, sixty days after the American issuing bank accepted it. What happens to it in the meantime? After presenting the draft for acceptance, the American correspondent of the British bank would retain possession of it, but title would rest with the British bank. The British bank might order its correspondent to hold the acceptance till maturity, in which event it would be financing the trade transaction. In other words, the British bank would be making a loan to the American importer, since it had paid off the British exporter and had not itself received payment. Or the British bank, desiring to have its dollar balance in the United States increased immediately, might order its correspondent bank to sell the acceptance in our money market. In that event, a bank located anywhere in the United States might buy the acceptance for inclusion among its secondary reserve assets.

The reason for calling the purchase of an acceptance an impersonal transaction can now be readily understood. Suppose that a bank in Cleveland, Ohio, buys the acceptance. It would be willing to do so because the New York accepting bank, and not the importer, is primarily liable upon the instrument. The Cleveland bank then would actually be making a loan to the American importer, although it might know little or nothing about him, his credit position, or the nature of the transaction which originated the acceptance, and certainly it had not entered into any direct negotiations with him.

Letters of credit and bankers' acceptances may be used in a variety of

³ For a description of the trust receipt, see above, p. 257.

ways, but the foregoing illustration is sufficient for our purposes at this time. We shall study the use of acceptances in greater detail when we examine the mechanisms of foreign exchange.⁴

OPERATORS IN THE ACCEPTANCE MARKET

Accepting Institutions.—The principal accepting institutions in the United States are the large commercial banks of New York City and of a few other cities. Prior to 1913, national banks were not permitted to accept time drafts drawn upon them, and as a result much of our foreign trade was financed through foreign money markets, principally London. This deficiency of the national banking system, like so many others, was corrected by the Federal Reserve Act. At the present time, a national bank may have outstanding at any time accepted drafts in the aggregate in an amount equal to its capital and surplus; but not more than an amount equal to 50 per cent of its capital and surplus may be represented by acceptances negotiated for domestic transactions.

Although the accepting institutions are the creators of acceptances, it is to be emphasized that they are neither the lenders nor the borrowers. When a bank issues a letter of credit and accepts a draft, it merely, as it were, *lends its good name* to the person who obtains the letter of credit, and the latter is the actual borrower. The lenders in the acceptance market are the buyers of acceptances—again, chiefly the great commercial banks of New York City, although banks located elsewhere buy acceptances, when available in sufficient quantities, for their secondary reserve portfolios.

Federal Reserve Banks as Buyers.—The acceptance market is peculiar in that a special group of buyers, the federal reserve banks, dominates it. The reserve banks hold themselves in readiness to buy any quantity of acceptances offered to them at any time at their announced "buying rate." As the buying rate has usually been below the rates charged to member banks on rediscounts and advances, the acceptance market has been especially favored. Early in the career of the Federal Reserve System, the authorities decided to encourage the use of bankers' acceptances by providing a market in which holders of acceptances could always dispose of them.

Thus any commercial bank may buy acceptances freely with the knowledge that, in time of need, it can sell them to the federal reserve banks; likewise, the "recognized" acceptance dealers may buy any quantity of acceptances, knowing that they will always be able to find a market at the federal reserve banks if not elsewhere. What is more, banks and dealers may sell their holdings to the reserve banks under repurchase agreements, by which they reserve the right to retake the acceptances at any time up to ninety days. A sale under a repurchase agreement is equivalent to the negotiation of a short-term loan at the reserve banks for the carrying of acceptances.

⁴ See below, pp. 486-494.

Middlemen in the Acceptance Market.—The most important middlemen in the acceptance market are the acceptance houses and dealers. Other financial agencies, such as the dealers in commercial paper, also buy and sell acceptances in order to keep their facilities fully employed. The acceptance houses and dealers and other middlemen customarily buy the paper in their own names, and thus they act as principals rather than as brokers. Acceptances are bought and sold on a discount basis, and the dealers make their profits on the difference between the rate of discount at which they buy and that at which they sell. A dealer's buying rate cannot significantly exceed that set by the federal reserve banks; otherwise those who have acceptances to sell would dispose of them at the reserve banks. Investing institutions, however, must decide whether or not to buy on the basis of the selling rates established by the dealers, since the reserve banks never resell any of the acceptances which they acquire by outright purchase.

New York remains the chief center of the acceptance market, not only in the creation of acceptances, but also with respect to their purchase. Banks located outside New York have bought acceptances only in limited quantities, and a truly national market has failed to materialize. The dealers market their holdings in New York by means of salesmen who call upon prospective investors, and daily "offering sheets" are circulated both in the city and elsewhere. Some out-of-town business is done by branch houses, by correspondent institutions, and by telephone, telegraph, and mail.

The Commercial Paper Market

NATURE OF OPEN-MARKET COMMERCIAL PAPER

A second market for short-term impersonal loans is that in which commercial paper is bought and sold. Open-market commercial paper consists of promissory notes issued by corporations which want to borrow for short periods. The notes, which are usually unsecured, promise payment of round sums, such as \$5,000, \$10,000, and \$25,000. They are customarily made payable to the borrowing corporations which indorse them—an arrangement which makes it possible for them to pass from hand to hand without further indorsements. As the notes do not bear interest upon their face, they change hands, like bankers' acceptances, on a discount basis. Open-market promissory notes are not substantially different in form from the notes which borrowers sign when they obtain loans direct from banks.

OPERATORS IN THE COMMERCIAL PAPER MARKET

Borrowers in the Open Market.—The borrowers on open-market commercial paper are business firms of excellent reputation which have a high credit standing, a sound financial position, and a record of meeting obligations promptly. A superior financial reputation, one might say, is a minimum requirement for open-market borrowers, since they are able to obtain

funds without submitting to a direct examination by the lending banks. More than four thousand firms borrowed in the open market in the year 1920, but an extraordinary decline in the number of open-market borrowers has occurred since then. Approximately seven hundred firms have been issuing commercial paper annually since 1931.

Various reasons account for the decision of a corporation to borrow in the open market: (1) The corporation may be able to borrow at lower rates of interest than would be payable on loans negotiated with the commercial banks. (2) Its credit requirements may exceed the amount that can be conveniently provided by the banks with which it customarily does business. (3) If the corporation finds that it is able to obtain funds from a host of lenders in the open market, it wins freedom from restrictive terms which might be imposed by individual banks negotiating directly. (4) All the funds which the corporation borrows in the open market are fully at its disposal, as no stipulation is made that it keep an average balance on deposit while the paper is outstanding. (5) Finally, the financial reputation of a corporation is enhanced by the fact that it is able successfully to sell promissory notes in the open market.

Very few corporations depend exclusively upon the open market for short-term credit, for the reason that that source of credit may evaporate in times of emergency. The banks which lend to corporations by buying their paper in the open market feel no obligation to continue to supply them with funds in critical periods. On the other hand, the banks with which the corporations customarily carry on their direct business relations do feel some responsibility for their financial welfare, and even in critical times are likely to make available as much credit as possible.

Middlemen in the Commercial Paper Market.—The middlemen in the commercial paper market, known as commercial paper houses, acquire issues of promissory notes in bulk and retail them among their customers. One of the minimum needs of a commercial paper house is an efficient credit department. While the banks which buy commercial paper may independently investigate the credit of the issuers, they rely heavily upon the recommendations of the commercial paper house; hence the reputation of the house greatly suffers in the event that an issue is defaulted. In addition, commercial paper houses may suffer financial losses since their policy is to buy the paper outright; if they are unable to dispose of a poor issue, it remains "frozen" in their hands.

A corporation which plans to sell an issue of promissory notes approaches a commercial paper house with its proposition. The latter makes a thorough investigation of the corporation's credit history and of its operations to assure itself that the paper will be redeemed at maturity. If the corporation's record is found to be satisfactory, terms are arranged for the sale of the issue in bulk. The rate of discount depends upon the general state of the money market, the quantity of paper of various qualities avail-

able, and the number of customers who are buying such paper. Not only does the commercial paper house ordinarily charge a commission of one fourth to one half of 1 per cent on the face value of the paper, but it hopes also to make additional earnings by selling the paper at a lower discount rate than that at which it buys.

Prospective buyers of commercial paper are visited by salesmen or they are informed as to available issues by telegraph, telephone, or mail. Commercial paper houses try to include in their lists paper of various maturities, issuers, denominations, and prices, so that each customer may be able to make a selection to meet his individual requirements. The maturities are most commonly 90 days, 120 days, and 180 days. Banks are frequently permitted to buy the paper on an option basis; by this arrangement, they are allowed 5, 10, or even 20 days to make an independent credit investigation, and if they are not satisfied with the quality of the paper, they may return it to the commercial paper house.

Investors in Commercial Paper.—Banks located throughout the country invest in open-market commercial paper and include it among their secondary reserves. Investment in commercial paper is especially advantageous to banks which operate in cities and towns where industrial enterprises are highly specialized. In such communities, the banks are likely to have their fortunes too closely bound up with the specialized industries; and if the industries are adversely affected by economic developments, the solvency of the banks is endangered. By the purchase of commercial paper issued by corporations which operate in other fields of industry, therefore, the banks may achieve a measure of diversification.

As losses on commercial paper have been quite small, the banks which buy such paper have almost perfect assurance that it will be paid off at maturity. The maturity of commercial paper is never extended, although a corporation may sell a new issue to take the place of one which it is retiring. If banks need to replenish their primary reserves quickly, they may in some instances resell the paper to the commercial paper houses; and if they are members of the Federal Reserve System, they may rediscount it with the reserve banks, provided that the paper is within ninety days of maturity at the time of discount and is otherwise "eligible" according to the provisions of the Federal Reserve Act and the regulations of the Board of Governors. A possible shortcoming of commercial paper, on the other hand, is that the banks must rely exclusively upon the credit of the issuing corporations, as the commercial paper houses do not indorse the paper which they market.

The Collateral Loan Market

Another variety of short-term paper which provides a source of secondary reserve assets originates in the negotiation of collateral call and time loans by brokers. Although the importance of the collateral loan

market has declined since the stock market crash of 1929, it remains, as Table 24 shows, a substantial outlet for short-term funds. Collateral loans are granted on the security of pledged stocks and bonds to permit their purchase by individuals who do not have the full buying price. If a person wants to borrow money to buy stocks and bonds, he may negotiate a loan directly with his bank, leaving the stocks and bonds as security; or he may go to his broker, put up a sum of money in partial payment, and depend upon the broker to borrow from the banks to make up the balance.

TABLE 24

MONEY MARKET SECURITIES OUTSTANDING, SELECTED YEARS, 1927-1945

(In millions of dollars)

End of year	Bankers' acceptances	Commercial paper	Brokers' loans (N. Y. Stock Exchange) ^a	Treasury bills	Treasury certificates	Treasury notes
1927	1,081	555	4,433	—	1,241	1,920
1929	1,732	334	3,990	100	1,306	1,885
1931	974	120	587	576	1,661	600
1933	764	109	845	1,003	1,628	4,880
1934	543	166	880	1,954	—	9,187
1935	397	171	938	2,404	—	11,792
1936	373	215	1,051	2,203	—	10,289
1937	343	279	659	1,952	—	10,547
1938	270	187	717	1,306	—	8,496
1939	233	210	594	1,455	—	6,203
1940	209	218	413	1,310	—	6,178
1941	194	375	389	2,002	—	5,997
1942	118	230	378	6,627	10,534	9,863
1943	117	202	557	13,072	22,843	11,175
1944	129	166	726	16,428	30,401	23,039
1945	154	159	795	17,037	38,155	22,967

^a Brokers' borrowings on collateral in New York City, 1927-1941; borrowings from banks in New York City and elsewhere as well as from other lenders (not including members of national security exchanges), 1942 and thereafter.

Source: *Banking and Monetary Statistics*, pp. 465-467, and 500, and *Federal Reserve Bulletin*.

When brokers borrow money from the banks to complete stock exchange transactions for their customers, the loans are usually arranged in the open market. The open market for collateral call loans, like that for acceptances and that for commercial paper, is an impersonal one, and thus the banks ordinarily feel no reluctance in demanding the repayment of such loans. Call loans are therefore regarded as good secondary reserves because they can be converted into primary reserves on demand. And time loans to brokers, although they are not open-market transactions, are almost invariably paid at maturity.

Loans in the collateral market, as we have said, are secured by the

pledge of stocks and bonds. When a broker buys securities for customers who trade on margin, he retains possession of them until they are fully paid for; meanwhile, with the customers' written permission, he may pledge the securities in obtaining loans from the banks. A lending bank may call for additional collateral when that already pledged becomes inadequate because of a decline in market prices, and it reserves the right at all times to sell the pledged securities to reimburse itself should developments in the market warrant such self-protective action.

Because of the high margin requirements which have been in effect in recent years, the total volume of outstanding collateral loans has been kept at levels substantially lower than those which were reached in the 1920's. The term *margin requirements* refers to the proportion of the value of a security which must be supplied by the purchaser or by the short seller.⁵ Thus the proportion which the broker undertakes to borrow on behalf of his customer is equal to the value of the security less the margin stipulated. Before 1934, brokers customarily required a margin of only 20 per cent, but since then the requirements have prevailed at much higher levels as determined by the Board of Governors of the Federal Reserve System under authority of the Securities Exchange Act.⁶ In the period from July 5, 1945, to January 20, 1946, for example, the rulings of the board required a buyer to supply 75 per cent of the purchase price of the securities which he wanted to buy, and a short seller to provide an equal percentage of the price of those to be sold. Thus, during the period referred to, a person wanting to buy on margin one hundred shares of a stock selling in the market at \$50 had to put up at least \$3,750, so that the broker was permitted to advance not more than \$1,250.

OPERATORS IN THE COLLATERAL LOAN MARKET

The principal lenders in the collateral loan market are the commercial banks located in cities where stock exchanges operate. In New York City, which is the center of the collateral loan market, most of the funds are supplied directly by the New York banks; however, out-of-town banks may arrange to place funds in the New York market. When collateral loan rates are high—as they were, for example, during the stock market boom of 1927–1929—banks located in all parts of the country find it advantageous to employ the New York banks as agents in placing funds at call. When rates are low, on the other hand, the income which might be derived by out-of-town banks in lending in the New York market would largely be absorbed by the commissions which they would have to pay to the New York banks

⁵ A "short sale" is a transaction wherein a trader sells securities which he does not possess. His broker borrows the securities to make immediate delivery, and the trader must at some time "cover" the transaction by buying identical securities so that they may be returned to the lender. The reason for the transaction is that the trader hopes to be able to "cover" at a price lower than that received on the short sale.

⁶ See below, pp. 447–449.

as their agents; at such times, therefore, they are likely to avoid the market. During the 1920's, individuals and nonbanking institutions frequently made loans on call through the agency of the New York banks, but provisions of the Banking Act of 1933 now proscribe lending from such sources.

The brokers may be regarded as the borrowers in the collateral loan market, since they are primarily liable upon the loans they negotiate, and despite the fact that most of the money is borrowed for the benefit of their customers.

"Money brokers" and the stock exchanges themselves are the principal middlemen in the collateral loan market. Money brokers arrange loan transactions between the banks and other brokers, and the stock exchanges provide facilities through which loan funds may flow. Thus much of the lending on the New York Stock Exchange is made at its "money desk." If a bank wants to choose the brokers to whom it is willing to lend, it hires a money broker who carries on the negotiations; but if it is satisfied to lend to any broker who applies, it customarily lends through the money desk. As money brokers charge a small commission for their services, lending through the money desk leaves a larger gross profit for the bank.

RATES ON COLLATERAL LOANS

Rate on New Loans.—A bank which is willing to grant call loans through the money desk of the New York Stock Exchange asks a broker to inform the clerk at the money desk of the amount it has to offer and the rate at which it is willing to lend. At the same time, brokers who want to borrow notify the clerk regarding their needs and the rates which they are willing to pay. It is then the duty of the clerk to bring the lending brokers and the borrowing brokers together so that loans may be arranged. The rate charged on a loan is agreed upon by the brokers involved, and it is posted at the money desk as the "market rate" or the "rate on new loans." The rate on new loans may vary from time to time during the day, depending upon the supply of and demand for funds.

Renewal Rate.—More significant than the rate on new loans is the "renewal rate" which applies to all loans arranged through the money desk on preceding days and still outstanding. The renewal rate, determined by the executive committee of the Stock Clearing Corporation, is usually announced at 10:40 in the morning; it is supposed to be an equilibrium rate in view of the total offerings of the banks on call and the total needs of the brokers. It applies for only one day and may be changed on each succeeding day if conditions warrant.

An illustration will clarify the application of the renewal rate. Suppose that on a certain day a bank lends through the money desk \$500,000 at a rate of 1 per cent per annum. The brokers who borrow the money must pay the bank interest at the designated rate for one day. On the following day, let us say, the demand for funds falls off and the supply remains strong,

so that the executive committee of the Stock Clearing Corporation announces a renewal rate of seven eighths of 1 per cent. The rate so announced applies to the loan of \$500,000 made on the preceding day. If on the third day the renewal rate were to be placed at $1\frac{1}{4}$ per cent, it would also apply to the loan of \$500,000. Thus the brokers might have a different rate to pay on each day their loans were outstanding.

The application of the renewal rate in the manner just described avoids a large volume of unnecessary loan and repayment transactions. If the 1 per cent rate originally charged were to apply continuously, the brokers could very easily repay the borrowed money on the second day by borrowing elsewhere at seven eighths of 1 per cent; and, similarly on the third day, the banks would surely call their 1 per cent loans and relend the money at $1\frac{1}{4}$ per cent. The banks and brokers may, of course, reject the renewal rate by calling or repaying their loans.

LIQUIDITY OF CALL LOANS

A bank which has loans outstanding in the collateral market is likely to regard them as excellent secondary reserves, for it realizes that they can be converted into primary reserves almost at will. It is true that banks observe a rule that call loans may not be called for payment on the day on which they are granted, but the fact that there is a delay of one day in obtaining repayment does not seriously impair the secondary reserve quality of call loans. For the commercial banking system as a whole, however, the liquidity of call loans is by no means assured. This conclusion follows from the fact that the brokers have no important source of funds independent of the banks—when one bank calls its loans, the brokers expect to be able to borrow from other banks. If all banks call their loans in a critical period, the entire market tends to become “frozen” so that many banks are likely to be unable to obtain payment. Such a situation characterized the panic of 1907, but a similar impasse did not develop during the panic of 1929, chiefly because of the liberal extension of credit by the Federal Reserve Bank of New York.

TIME LOANS TO BROKERS

Because brokers realize that they may be required at any time to repay the money which they have borrowed on call, they customarily take steps to reduce the vulnerability of their position by borrowing on time loans. Such loans usually run for 30, 60, or 90 days, and some are arranged for periods as long as six months. The rates on time loans are usually higher than those on call loans, because the banks forgo their freedom of action when they grant loans for specific periods of time: although they may require additional collateral if the value of that already pledged declines in the market, they must wait till maturity for repayment. The rates and other terms on time loans are determined by direct negotiations between the banks and the brokers.

The Market for Government Paper

SHORT-TERM OBLIGATIONS OF THE FEDERAL GOVERNMENT

The short-term paper issued by federal, state, and local governments, and particularly that of the federal government, is usually recognized as excellent secondary reserve material. The federal government issues bills, certificates of indebtedness, and notes, all having maturities of less than five years. All are of the highest quality with respect to safety, for there is full assurance that they will be redeemed at maturity. Moreover, these instruments can readily be resold before maturity and they can be used by banks as collateral security in borrowing from the federal reserve banks.

The treasury bills run for periods of less than a year—those issued in recent years have generally matured in 91 days. They are similar to acceptances and commercial paper in that they are sold on a discount basis, but the only middlemen employed in their sale are the federal reserve banks serving as the fiscal agents of the Treasury. An announcement is merely made to the effect that the Treasury will receive bids on, perhaps, \$1,300,000,000 of 91-day bills; and the banks send their bids to the federal reserve banks, stating the amount they would take at stipulated discount rates. Thus a bank might bid for \$250,000 of bills at a discount rate of three eighths of 1 per cent per annum. The Treasury accepts the most favorable bids and apportions the issue among the successful bidders.

In April, 1942, the Treasury resumed the issue of certificates of indebtedness, a type of obligation which had last been employed in 1934. Unlike the treasury bills, certificates of indebtedness bear interest at a rate determined by the Treasury. Those issued in 1942 and thereafter—with maturities ranging from six to twelve months—were designed to meet the requirements of banks and other investors who wanted to acquire paper having a longer term than the bills.

Treasury notes, which also bear interest at rates determined by the Treasury, generally mature in from three to five years. Despite the longer maturity, they are widely employed for secondary reserve purposes, since they can be resold or used as collateral in borrowing from the federal reserve banks.

SHORT-TERM PAPER OF STATE AND LOCAL GOVERNMENTS

State and local governments also frequently borrow upon short-term paper, which is generally regarded as satisfactory for secondary reserve portfolios. The banks, however, must normally expect to carry such paper until maturity, as a well-organized market for state and local government issues does not exist. There is every assurance, at all events, that the instruments will be paid off at maturity, and the banks may feel reasonably safe if they buy issues of various maturities.

Some state and local governments dispose of their short-term paper by

asking for bids from the banks, and others dispose of it through municipal bond houses and other investment institutions. Some short-term issues of state and local governments bear interest, and others are sold on a discount basis.

Chapter 18

COMMERCIAL BANK INVESTMENTS

In recent years, commercial banks, as we have seen, have come more and more to rely upon the investment market ¹ as a source of earning assets, and they have purchased large quantities of securities issued by the federal government and smaller quantities of those issued by state and local governments and by corporations. Of course, the purchase of investment securities other than stocks is essentially a lending operation—the advancing of funds to the issuing governments and corporations—but the loans are made impersonally in the open market, and there are generally no direct negotiations between the banks and the issuers. The borrowers and lenders are brought together through the services of middlemen.

Most commercial banks prefer to lend direct to their own customers. Not only is their usefulness to their local communities enhanced, but they are also able to create good will in the minds of satisfied customers which should be productive of further profitable business. Moreover, the interest rates which banks charge on direct customer loans are ordinarily larger than those carried by investment securities of equal face value.

REASONS FOR BANK INVESTMENTS

Aside from the acquisition of securities for secondary reserve purposes, commercial banks generally buy investment securities for three important reasons: for diversification of resources, for earnings when there is an inadequate demand of the banks' own customers for loans and discounts, and for the support of the federal government's financial program in time of war.

Investment for diversification is a commendable policy for any commercial bank, but especially for those banks which serve communities in which one or two industries account for the mass of local business activity. In the United States, we have great reaches of farming lands, "steel cities," "coal cities," "glass cities," "textile cities," "rubber cities," and others. Banks which operate in such industrially specialized communities endanger their solvency

¹ The term *investment* is used in the present chapter—as it has already been used in preceding chapters—to mean the purchase of stocks and bonds and other formal evidences of ownership and debt. Another connotation of the term, much more restrictive in character, is discussed in Chapter 25 in connection with the analysis of the income theory of the value of money.

when they devote their full resources to the extension of local loans. The safety of the loans made to merchants, to other enterprisers, and to consumers in such a community ultimately rests upon the prosperity of the industry upon which the community depends for its livelihood. A bank located in a "textile city," for example, would unquestionably find it a good policy to purchase bonds of the federal government, state governments, and municipalities other than the local community itself, the obligations of railroads, electric power companies, and other public-utility operating companies, and the issues of varied industrial corporations. Thus if the textile industry were to become depressed, the bank might well maintain a reasonably secure position though many of its local loans and investments might become "slow" or "frozen."

At times, as during the depression beginning in late 1929, bank customers curtail their loans, and the banks are faced with the choice of permitting their resources to remain idle or of using them elsewhere. In the decade of the 1930's, therefore, the commercial banks turned to the investment market, not as a matter of choice, but because of necessity. Much of the interest income formerly derived from loans and discounts had to be replaced by interest on securities, so that the normal cost of operation could be met and returns made to the stockholders. The increase in bank primary reserves occasioned by the importation of huge quantities of gold, the government's silver purchase policy, and other minor causes greatly expanded the sums available to the banks for investment. In other words, even if the loans and discounts of customers had continued at a volume equal to that of the 1920's, the banks would still have had the capacity to invest heavily in securities.

If one wants to take a cynical stand with respect to commercial bank purchases of government securities in time of war, one may hold that such purchases are not to be distinguished in any way from investment for earnings. According to this view, the commercial banks have excess reserves, they face an insufficient demand for loans, and, to earn what they can, they put the excess funds in government bonds and other government obligations. At the other extreme, one may take the viewpoint that the commercial banks are motivated by the spirit of patriotism in coming to the aid of a national government hard pressed in meeting the tremendous outlays for war. Probably, however, a viewpoint which avoids these extremes best describes the motives of commercial bankers, that is to say, they probably buy federal securities in wartime in a volume far beyond what their customary policies would permit—to this extent, their motives may well be described as patriotic—and yet they are pleased to derive income from funds which otherwise lie idle. Whatever the motives, the fact remains that the commercial banks, as a group, did make an extraordinary contribution in assisting the Treasury to meet the costs of our engagement in the Second World War, as the data of Table 20 indicate.²

² See above, p. 248.

INVESTMENT POSITION OF COMMERCIAL BANKS

The commercial banks have often found themselves in a position to go into the securities market only at the "wrong" time. This situation arises because of their specialized business of granting loans and because of the legal regulations which restrict their investment operations. In periods of prosperity, the commercial banks do not usually have a large volume of surplus funds to put into securities, because their resources are used to meet the expanded demand for loans of their customers; but at such times, the prices of securities in which the banks may safely invest, or in which they are permitted to invest, are usually at their lowest level. On the other hand, in times of depression, when the commercial banks are likely to have abundant funds available, the demand for bank loans is at the lowest ebb; yet securities of superior quality sell at prices well above par. If the banks buy securities at high prices during depression periods, the amortization of the premiums results in a reduction of interest earnings; moreover, the sale of the securities in a declining market in the period of economic recovery—when the demand for customer loans expands—may occasion severe losses.

"Money Risk."—Fluctuations in the prices of securities on account of changes in the supply of and demand for funds constitute a "money risk" which must be assumed by all investors, including the commercial banks. Money risk originates because changes in the supply of and demand for funds produce variations in market rates of interest. If the market rate of interest on securities of a given quality is, say, 3 per cent, securities of that quality which bear a nominal rate of 3 per cent should sell approximately at par; but if the market rate should rise to $3\frac{1}{2}$ per cent, the price of the 3 per cent securities would tend to fall below par; and should the market rate fall to $2\frac{1}{2}$ per cent, the price of the 3 per cent securities would tend to go to a premium.

Money risk is thus quite different from "credit risk," to which more attention is likely to be given by investors. The credit risk depends upon the issuer of the securities—upon such factors as his earning power and the relative claim upon earnings of the various types of securities he has outstanding; but money risk is ordinarily beyond the control of the issuer. Thus securities which are virtually perfect with respect to the credit position of the issuer, such as those of the United States government, may be regarded at times as "dangerous" from the standpoint of money risk.

Offsetting the Dangers of Money Risk.—One way to reduce the money risk involved in investment—or to "hedge" against it—is to purchase common stocks at the same time that high-grade bonds are purchased, since the prices of these two types of securities tend to move in opposite directions. Hence the loss in market value of one type is likely to be balanced by a gain in the market value of the other type; and the interest on the bonds and the dividends on the stock ought to assure a continual flow of returns. But because the commercial banks of the United States are almost com-

pletely excluded by law from common stock investments, the possibility of hedging by common stock purchases is closed to them.

In the absence of facilities for hedging, many commercial banks try to avoid the dangers of fluctuations in market rates of interest by "arranging the maturities" of their investment securities. This policy envisages the purchase of securities of such maturities that certain blocks will come due periodically—monthly, quarterly, semiannually, or perhaps annually. The banks are thus assured of a constant inflow of funds from redeemed securities. If the funds are needed for increased loans to customers, they may be so used; if not, they may be reinvested in other securities whose maturity also fits into the pattern of the banks' portfolios. If the maturities are properly planned, the banks may disregard fluctuations in market prices—though the range of fluctuations may be broad—and be content to wait for redemption at maturity. When there are reasonable prospects that a security will be paid off at maturity by its issuer, its market price will approach par as the maturity date nears, regardless of the current market rates of interest at that time.

INVESTMENT IN FEDERAL SECURITIES

The foregoing discussion of money risk should indicate why grave anxiety is expressed at times by statesmen, economists, and bankers with respect to the huge investments of commercial banks in obligations of the federal government. Because most commercial banks have 50 per cent or more of their total assets invested in such obligations, their solvency would seem to depend upon the behavior of the market prices of "governments." A substantial decline in market prices would wipe out asset values while leaving the face amount of deposit liabilities unaffected, and, indeed, if the decline were severe enough, the banks' capital accounts might—on paper, at least—completely evaporate.

So long as the Treasury had to borrow tremendous sums to finance the war program, the commercial banks did not have to be concerned with immediate prospects of rising market rates of interest for it was the announced policy of the Treasury to continue to pay uniformly low rates of interest upon its obligations throughout the war period. In other words, the Treasury in effect assured early investors in its securities that the market prices would not be permitted to fall because of the payment of higher rates on later issues. In times of peace and balanced budgets, however, the Treasury is not likely to have the same concern in keeping rates of interest low. In the early 1920's, for example, the prices of Liberty bonds fell at times to discounts approximating 10 per cent, and the Treasury was not unfavorably affected because the budget was in balance and the outstanding debt was being gradually reduced.

Rising rates of interest need not, however, produce an immediate banking crisis. Some bankers might, indeed, unload their "governments" in

the hope of avoiding losses occasioned by continuous declines in market prices—and, in fact, such frightened selling would tend to speed the fall in prices. But the majority, one may reasonably believe, would not likely be stampeded into wholesale liquidation of government obligations. For one thing, many bankers, in buying these obligations, have concentrated upon short- and intermediate-term issues, and they have carefully arranged the maturities of their purchases, so that, in the absence of an extraordinary volume of withdrawals of deposits, they can afford to wait till maturity when the securities will be redeemed by the Treasury at par, regardless of current market prices. Again, many bankers who find themselves in need of large amounts of cash will doubtless use their government securities as collateral in obtaining advances from the federal reserve banks; in this way, even long-term federal obligations may be held till maturity, when they will be redeemable at par.

With regard to the "danger" of large portfolios of federal securities, therefore, much depends upon three factors: (1) changes in market rates of interest, (2) the volume of withdrawals of the general public from the commercial banks, and (3) the policy of the federal reserve banks in granting advances to the commercial banks upon the security of government obligations. If market rates of interest rise, the policy of the federal reserve banks will become of prime importance, for if the reserve banks are willing to grant unlimited advances, the commercial banks need not worry about the market prices of their "governments": they will be enabled to hold such securities to maturity, in the meantime pledging them with the federal reserve banks for immediate cash advances.

The Regulation of Commercial Bank Investments

Not only do the federal and state governments limit the lending operations of commercial banks, but they also establish regulations to govern the purchase of securities by the banks subject to their respective jurisdictions. The regulations differ from state to state, as well as between state and national governments. It is impossible in this text to take account of all the varieties of limitations which are at present in force, but their nature and scope will be understood if we consider the more important federal regulations. As the federal regulations are applied, not only to national banks, but also, in accordance with the terms of the Banking Act of 1933, to state banks which are members of the Federal Reserve System, they impose restrictions upon most of the commercial bank resources of the country.

TEN PER CENT RULE

An outstanding federal regulation is that a member bank may not invest more than an amount equal to 10 per cent of its capital and surplus in the securities of any one issuer. The measure of the amount invested is

the par value of the securities rather than their market value. This limitation does not apply to the securities of the federal government, to those guaranteed as to principal and interest by the federal government, and to the general obligations of state and municipal governments. The exception explains why it is possible for many banks to have 50 per cent or more of their assets invested in obligations of the United States government.

INVESTMENT IN STOCKS

Member banks of the Federal Reserve System are subject to strict limitations in their ownership of stocks. They are, of course, required to buy stock in the federal reserve banks of their respective districts, as that is a condition of membership. The only other stocks which they may hold as permanent investments are those of subsidiary corporations established for certain specified purposes. A subsidiary may be organized for the sole purpose of owning and maintaining the building in which the bank carries on its business, but the total amount invested in the stock of such a subsidiary may not exceed the amount of the bank's own capital stock, unless the Comptroller of the Currency grants permission to national banks for a larger investment, or the Board of Governors extends this permission to state member banks. (It will be recalled that an identical limitation applies when a bank owns the building in its own name.) Again, a member bank may establish a subsidiary corporation to carry on the safe-deposit business, but without special permission it may not invest in the subsidiary's stock an amount in excess of 15 per cent of its own capital and surplus. Finally, a member bank may own stock in a corporate subsidiary which it establishes for the purpose of carrying on a foreign banking business, but the investment must not exceed 10 per cent of the bank's capital and surplus.

Stock may be acquired by member banks by means other than direct purchase. Commercial banks, as we have seen, make many loans upon the security of pledged stocks and bonds, as in advances to brokers and to customers for the purchase of such securities. In the event of default, a bank may take title to the pledged collateral, even though it includes common and preferred stocks; but stocks so acquired must be sold within a reasonable time. What period of time is "reasonable" depends, of course, upon market conditions.

A member bank is not permitted to make loans on the security of its own stock, nor to buy its own stock in the market; but such stock may come into its possession as it enforces payment on outstanding loans. Although the bank is permitted to take title, the law requires that the stock be sold within six months.

INVESTMENT IN BONDS

Even when buying bonds for investment purposes, member banks do not have a free rein. The Comptroller of the Currency has authority under

the law to establish limitations with respect to the bond investments of national banks—an authority which was extended to include state member banks by the Banking Act of 1933.

Member banks are forbidden to invest in bonds which are “distinctly or predominately speculative.” Whether or not specific types of bonds are speculative depends upon many circumstances. Because of the uncertainties of the future, almost any security may be thought of as speculative, but the speculative element is not necessarily distinct or predominant. In judging whether or not a specific bond issue is speculative, the Comptroller seems to place great faith in the opinion of the “rating agencies,” such as Moody’s Investors Service and Standard and Poor’s Corporation, which publish manuals and reports classifying securities on the basis of their investment qualities. The investing bank, however, is not expected to accept the published ratings blindly; it is encouraged to make an independent analysis before buying securities. Indeed, a bank’s contention, on the basis of its own analysis, that a security is nonspeculative may be accepted despite a contrary opinion of the rating agencies.

In this regard, it must be remembered that bank investments are not limited to those bonds which are included in the rating manuals and reports, for there are thousands of issues outstanding in the United States, of small face value or of a purely local character, which are not analyzed by the rating agencies. Such issues may be bought by member banks, but tests as to their safety similar to those employed by the rating agencies must be applied before purchase.

The Comptroller’s regulations formerly laid emphasis upon marketability of securities as the outstanding criterion for their inclusion in bank portfolios; but because this emphasis had the effect of making ineligible many small, local issues of good quality, the regulations were modified to permit investment in bonds of limited marketability if their maturity is not more than ten years from the date of issue, and if at least 75 per cent of their face amount will be retired by periodical payments before maturity. In recent years, the Comptroller has emphasized the safety and soundness of investments and has paid less attention to their immediate marketability.

MISCELLANEOUS REGULATIONS

Other regulations, of a more or less technical character, are the following: (1) Member banks may not purchase securities that are not registered with the Securities and Exchange Commission, unless they have been specifically exempted from registration. (2) If the security to be bought is issued under a trust agreement, a bank or trust company must be named as trustee. (3) No securities which are in default may be bought, nor may bonds which are convertible into stock at the option of the issuer. (4) Member banks may not purchase bonds which have stock purchase warrants attached or which are convertible into stock at the option of the holder, if the price

is greater than it would be were the warrants or conversion privilege not included. The acquisition of stock purchase warrants or convertible bonds under such circumstances is rightfully looked upon as a speculation. (5) Finally, member banks which purchase securities at a price in excess of the par value are required to amortize the premium, that is, to write off a portion of the premium periodically from the time of purchase until maturity.

Divorcement of Investment and Commercial Banking

Before 1933, many commercial banks in the United States not only bought investment securities for their own portfolios, but also engaged in underwriting security issues, that is, in guaranteeing to the issuers the sale of the securities at a stipulated price. Underwriting was accomplished by the purchase outright of large blocks of securities which the banks undertook to resell to their customers. The banks thus acted as security merchants in buying at wholesale and selling in smaller lots at retail. Although this kind of activity has normally come within the special province of investment banking houses, many commercial banks, especially in the late 1920's, enthusiastically invaded the field, either by opening specialized bond departments, or by organizing directly or indirectly separate corporations known as "security affiliates." Thus the National City Company was affiliated with the National City Bank of New York, the Chase Securities Company with the Chase National Bank, and the Guaranty Company with the Guaranty Trust Company.

The combination of investment and commercial banking functions within a single institution, or within a group of affiliated institutions, gave rise to conditions which, in many instances, made the commercial banker's interests irreconcilable with those of his customers. The hearings of the Senate Banking and Currency Committee held in 1932 and 1933 disclosed practices which, at the least, were undesirable from the point of view of the public welfare, and which, at the most, approached the fraudulent. Many people as a matter of course turned to the commercial banker for guidance in buying securities, thinking him to be better informed than themselves. Too often, the banker recommended to his customers the purchase of securities which he or his affiliate was engaged in underwriting. As adviser, he was presumably acting in the interests of his customers, but as a merchant in securities, he frequently acted contrary to their interests.

In view of the revelations of this Senate committee, Congress recognized the incompatibility of the commercial and investment banking functions, and in the Banking Act of June 16, 1933, provided for their divorcement. The law, as amended by the Banking Act of 1935, forbids any person, firm, or other organization "engaged in the business of issuing, underwriting, selling, or distributing" investment securities to "engage at the same time

to any extent whatever in the business of receiving deposits." Moreover, the officers, directors, partners, and employees of security underwriting concerns are declared to be ineligible to serve as directors, officers, or employees of member banks of the Federal Reserve System. Private banking houses, such as J. P. Morgan & Company, had to decide whether to continue operations as investment banks or as deposit-receiving banks; incorporated commercial banks, such as the Chase National and the National City, were allowed one year in which to dissolve their security affiliates; and all commercial banks were required strictly to limit the operations of their bond departments.

As a general rule, then, member banks are not permitted to participate directly or indirectly as underwriters in the flotation of securities. An exception, however, is made with respect to the issues of federal, state, and local governments, for the Board of Governors of the Federal Reserve System is empowered to allow member banks to act as underwriters of such issues. Member banks, moreover, may act as brokers or agents for their customers in executing orders for the purchase and sale of securities through stock exchange houses or in the over-the-counter market.

Chapter 19

HISTORY OF COMMERCIAL BANKING IN THE UNITED STATES

Commercial Banking before the Civil War

In the preceding chapters, we have had occasion to refer to certain phases of the banking history of the United States. We have seen that the colonial "banks" were nothing more than "batches of paper money," and we have traced the development of bank notes. Likewise, we have given some attention to the growth of facilities for the clearing of checks, as well as to the regulations which have been enforced from time to time respecting the holding of primary reserves and other banking practices. In subsequent chapters, it will be desirable to refer occasionally to the chronological development of certain other banking institutions and practices. Because of the historical references elsewhere in this text, therefore, the present chapter is limited to a broad survey of the outstanding developments in commercial banking, so that the continuity of the past with the present may be better understood.

BANKING IN THE PERIOD OF THE CONFEDERATION

Several banks (in the modern sense) were in operation before the adoption of the Constitution, and a few others were added in the early years of the new union. The most important of the early banks was the Bank of North America, which was opened for business in Philadelphia in January, 1782, under a charter granted by the Continental Congress. The bank, which was organized by Robert Morris and a group of his business associates, was authorized to raise capital of \$10,000,000. Because it was possible to obtain only about \$70,000 from private subscriptions, Congress itself purchased stock to the amount of \$200,000, and paid for it in specie just arrived from France. Although the central government was the principal stockholder, it left the management in private hands. On account of misgivings respecting the power of the Continental Congress to charter a banking institution, the bank obtained a charter from the state of Pennsylvania in 1782.

The Bank of North America performed valuable services on behalf of the government as well as for the general public. Large loans were granted

to the central government at a time when, because of its lack of independent taxing power, it was handicapped by having to appeal to the states for funds. Loans of the bank also enabled private individuals to expand their business operations. And not least of its services was the issue of notes of good quality which were redeemable in specie on demand.

Other banks of this period were the Bank of Massachusetts, which was chartered in 1784, and the Bank of New York, which was established in the same year although it operated without a charter until 1791.

FIRST BANK OF THE UNITED STATES

Origin.—Alexander Hamilton, the Secretary of the Treasury in Washington's Cabinet, had been one of the organizers of the Bank of New York in 1784; and shortly after the adoption of the Constitution, he began to promote a plan for a national bank to operate under federal charter. One of his celebrated reports, submitted to Congress in 1790, described the benefits which would be derived from the activities of such an institution. He argued that the government's interests would be served in that it could borrow from the bank, in that the bank would transfer funds about the country as its fiscal agent, and in that the taxpayers would have a ready means of payment in the bank's notes. Merchants, he believed, would be able to obtain loans to carry on expanded business operations, and the notes to be issued would supply a medium of exchange which would stimulate commercial activity.

Opposition to the establishment of a national bank was led by James Madison, whose antagonism was based upon the supposed unconstitutionality of the project. Because Madison had been chairman of the Constitutional Convention, his word carried great weight. A proposal to give to the federal government the authority to issue charters of incorporation, he pointed out, had been turned down in the convention; hence it was not illogical to conclude that it was not to exercise that authority. Others opposed the chartering of the bank on the grounds that it would be monopolistic in character and therefore undemocratic.

As early as this in the history of the nation, sectionalism was shown in the vote in Congress, for the representatives of the Northern states were almost unanimously in favor of the proposed bank, and those of the Southern states equally strong in opposition. President Washington acted upon Hamilton's advice in signing the chartering legislation when it was finally passed by Congress.

Charter Provisions.—The charter of the first Bank of the United States authorized a capitalization of \$10,000,000, of which one fifth was to be subscribed by the federal government. The government's subscription was made possible by a loan granted by the bank which was to be repaid in ten annual installments. The remainder of the stock was to be sold to private individuals whose subscriptions were to be paid in four semiannual installments

consisting in total of one fourth specie and three fourths in 6 per cent bonds of the federal government. The par value of the shares was placed at \$400, and individual subscriptions were limited to a maximum of 1,000 shares. Despite the provisions of the charter calling for a payment of \$2,000,000 in specie by private subscribers, it is probable that only about one-fourth of that amount was so paid.

The management of the bank was vested in a board of twenty-five directors elected by the stockholders; but no stockholder was permitted to cast more than thirty votes, and foreign stockholders had to be present in person to vote. The charter required the directors to be stockholders of the bank and citizens of the United States, and not more than three fourths of them were eligible for re-election from year to year. The directors, who received no compensation, were empowered to choose a salaried president. For the conduct of business, a quorum consisted of seven directors.

The bank was authorized to issue \$10,000,000 of notes which were not legal tender but which were receivable for all obligations due the federal government as long as the bank continued to redeem them at par in specie. The bank, moreover, was authorized to receive deposits, as well as to make loans both to the general public and to the federal and state governments. Its loans were to bear interest at not more than 6 per cent. The total granted at any time to the federal government, except by special permission of Congress, was to be limited to \$100,000, and that to each state, to \$50,000. The bank was forbidden to deal in commodities and to hold real estate except that required for its banking business and such property as might be foreclosed because of the default of borrowers. It could sell its holdings of government bonds but could not buy additional bonds in the market.

Branches of the parent bank were permitted, and several were established—in Boston, New York, Baltimore, Washington, Norfolk, Charleston, Savannah, and New Orleans. The head office was located in Philadelphia.

Operations of the Bank.—The charter of the bank, unless renewed, was to expire in twenty years. During that period, the bank's operations were highly successful, and its services to the federal government were especially noteworthy. Besides making the initial loan for the government's stock subscription of \$2,000,000, the bank from time to time made other large advances to the Treasury. In 1796, for example, the total indebtedness of the federal government to the bank reached \$6,200,000. As the bank insisted upon the payment of the debt, the government sold some of its holdings of bank stock in 1796 and 1797, and the remainder in 1802. The government enjoyed a profit of \$671,860 on the sale, and in the meantime it had received dividends totaling \$1,101,720. The bank's services as fiscal agent were also of benefit to the Treasury, for it moved government funds about the country by means of its branches at a time when most of the revenue was collected as customs duties in the seaboard cities.

As for its services to the general public, the bank supplied sound circu-

lating notes during a period in which gold and silver were scarce, and in which trade would have otherwise been impeded for lack of adequate mediums of exchange. Its policy of sending the notes of state-chartered banks to the issuing banks for redemption, and of refusing to receive such notes unless they were redeemable in specie, tended to keep state issues within reasonable bounds. In addition, the bank acted as a depository for private accounts, and made loans to merchants and others for customary business transactions

Closing of the Bank.—When we take note of the excellent work of the first Bank of the United States, it is difficult in our times to understand why its charter was not renewed. But opposition to the bank had continued throughout its career. The state banks, which were growing in number and size, naturally opposed the rechartering because they were anxious to be rid of an important competitor. Misgivings as to the constitutionality of the bank's federal charter were still an important factor in opposition—and especially so since the Jeffersonian Republicans were in power at the time the question of rechartering was debated. Although Albert Gallatin, Jefferson's Secretary of the Treasury, favored an extension of the charter, many Republicans opposed the bank if for no other reason than that it was a Federalist institution. The claim that the bank was an "undemocratic monopoly" was also a strong argument used against it; and a final telling attack of the opposition was based upon the fact that the bank's stock was owned largely by foreigners, particularly by British investors, a total of 18,000 out of the 25,000 shares outstanding resting in foreign hands. It was said that the foreign interests might exercise a dangerous influence not only upon the affairs of the bank but upon the economic development of the entire country.

The opponents of the bank were successful in their campaign, and the rechartering bill was defeated in the Senate on February 20, 1811, by the casting vote of the Vice-President. The bank, accordingly, proceeded to wind up its affairs and to suspend operations as a federal institution. In liquidation, it paid \$434 on each \$400 share outstanding.

SECOND BANK OF THE UNITED STATES

Need for a New Bank.—The absence of the first Bank of the United States was sorely felt during the period of the second war with England beginning in 1812. The number of state banks increased from 88 to 246 in the period from 1811 to 1816, and, because the restraining influence of the national bank was removed, they were able to issue notes in excessive quantities. At the same time, less specie was available for the redemption of notes, for approximately \$7,000,000 had been sent abroad to pay off the stockholders of the first Bank of the United States. As a result of the excessive note issues, the exportation of specie, and the abnormal war conditions, all the state banks of the country except those of New England suspended

specie payments in 1814. The federal government itself suffered losses estimated at \$5,000,000 in accepting depreciated and worthless state bank notes in the period from 1814 to 1817.

As early as 1814, Alexander Dallas, the Secretary of the Treasury in the administration of President Madison, advocated the establishment of a new national banking institution. He contended that the bank could grant loans to the Treasury at a time when the government credit was insecure; that a well-designed national note currency would be created; and that the new institution could gradually lead the state banks to a resumption of specie redemption. A bill to establish a bank was passed in January, 1815, but it was not acceptable to Secretary Dallas, and President Madison accordingly vetoed it. A more acceptable bill received the President's signature on April 10, 1816, and the bank opened for business in January, 1817.

Charter Provisions.—The second Bank of the United States was authorized to sell \$35,000,000 of capital stock of \$100 par value, of which 20 per cent was subscribed by the federal government and paid for in its own bonds. Private subscriptions, which were limited individually to 3,000 shares, were made payable in three installments, consisting in total of one fourth specie and three fourths government bonds. As in the case of the first bank, this provision of the charter was violated, for of the \$7,000,000 required, only about \$2,000,000 was paid in specie. The regulations respecting the bank's management were almost identical with those of its predecessor, except that the President of the United States was to choose five of its twenty-five directors. The bank was authorized to issue notes in an amount equal to its capital stock in denominations of not less than five dollars; the notes were to be receivable by the federal government for all public dues, and the bank was made subject to a penalty of 12 per cent per annum on the face value of its outstanding notes should it suspend specie payment.

In return for the exclusive privilege of operating under a federal charter, the bank obligated itself to pay the government a charter fee or bonus of \$1,500,000, payable in three equal annual installments, and to serve as fiscal agent without compensation. The federal government, on its part, agreed to keep all public funds on deposit with the bank, unless the Secretary of the Treasury should decide otherwise—in which event he was to submit to Congress a written explanation as to the reasons for his decision. Congress retained the right to inspect the books of the bank at any time.

Career of the Bank.—The career of the second national bank was much less happy than that of the first. It got off to a bad start. Many subscribers were allowed to obtain stock by merely turning their personal promissory notes over to the bank. The bank made loans to stockholders on such terms as to permit them to use the stock—sometimes unpaid for—as collateral. Many people, including the bank's president, William Jones, and other officers, speculated in its stock. Several of the bank's branches, and particularly those located in the South and West, issued notes in excessive quanti-

ties; and as they were redeemable at any branch, the effect was to drain specie from the more conservatively managed branches in the East. In 1818, as a result of reckless management, the Baltimore branch failed with a net loss of \$3,000,000. So dissatisfied was the general public with the policies of the bank that a bill was introduced in Congress in January, 1819, to set aside the bank's charter. This action led to the resignation of Jones, and the bank was permitted to continue in operation with a new president, Langdon Cheves.

Cheves succeeded in putting the bank into sound condition by restricting the note issues, curtailing loans and discounts, and generally observing a policy of extreme conservatism. Although he did restore the bank to a position of strength, his strict policies robbed it of much of its usefulness.

In 1823, Nicholas Biddle, who succeeded Cheves as president of the bank, expanded its operations, enlarged the quantity of its outstanding notes, and adopted a more liberal attitude toward the granting of loans. Under Biddle, the bank developed in much the same direction as the first national bank had done. It served the federal government adequately as fiscal agent; it encouraged the growth of private business; and it curbed the issue of state bank notes by sending them to the issuing banks for redemption. In all likelihood, the bank would have operated during the remainder of its twenty-year charter period as a well-managed institution, and would have obtained an extension of its charter without difficulty, had not the question of rechartering become a burning political issue.

Rechartering Controversy.—The story of the rechartering controversy has been told many times, and it is necessary here to give only the minimum details. Questions relative to the power of Congress to charter a bank were still constantly raised, although the Supreme Court had established a constitutional foundation for the bank's charter in two celebrated cases, *McCulloch v. Maryland* and *Osborn et al. v. United States Bank*.¹ President Jackson, in his first message to Congress in December, 1829, raised the question of constitutionality despite the decisions in these cases; and it was possible for him as a good Democrat to do so, for the decisions had been handed down by a Supreme Court headed by the Federalist John Marshall. As the decisions denied the right of state governments to tax the branches of the national bank as well as their notes, the state governments were encouraged to oppose the continuance of the bank. State banking interests were also, as a matter of course, opposed to the rechartering. It may be added that the political atmosphere of the period—an atmosphere accounting for Jackson's election in 1828 and 1832—was not healthful for a "monopoly" such as the bank was said to be.

Despite all these elements of danger for the bank, Jackson might have been persuaded to agree to an extension of its charter had not the question of extension become an outstanding issue in the presidential campaign of

¹ 4 Wheaton 316 (1819) and 9 Wheaton 738 (1824).

1832. Henry Clay, the candidate of the Whigs, made the demand for an extension of the bank's charter a major plank in his campaign platform, and he intimated that the bank would be forced to close if Jackson were re-elected. Jackson's victory, therefore, virtually spelled the doom of the bank, and indeed even before the election, in July, 1832, Jackson had vetoed one bill for extending the charter.

As a result of a misunderstanding, Jackson apparently came to believe that the bank was insolvent. In 1832, he asked the bank, as fiscal agent of the government, to accumulate a reserve of specie to make possible the retirement of some outstanding government bonds. Biddle suggested that the financing be deferred, and Jackson took this advice to mean that the bank was unable to carry out his instructions.² Jackson thereupon ordered the Secretary of the Treasury to deposit all future revenues of the federal government in state banks beginning September 26, 1833, and to exhaust the deposits with the Bank of the United States by drawing them out in meeting current expenditures. The officers of the bank, despairing of obtaining a renewal of the charter under the circumstances, proceeded to curtail loans and to limit other business. The bank ceased operations as a national institution on March 3, 1836; it was able, however, to obtain a charter from the state of Pennsylvania, but it was so badly managed that it crashed in the wake of the panic of 1837.

STATE BANKING BEFORE THE CIVIL WAR

Overdevelopment and Malpractices.—The history of state banking before the Civil War presents a dismal picture—a picture of overdevelopment in the number of banking institutions, of excessive issues of notes, of frequent crises, and of numerous malpractices. The situation, of course, was not dismal at all times and in all places. Many of the state institutions, such as the Bank of North America and the Bank of New York, were soundly organized and conservatively managed, and the banks of New England, as a group, were especially noteworthy for the intelligence and honesty of their policies. Nevertheless, in many sections of the country, bank management was truly of a "wildcat" character, particularly in the period following the closing of the second national bank.

Hundreds of banks in this period issued notes, though they had extremely meager reserves to meet their promises to pay—if they had any reserves at all. True, they had nominal capital stock, but this often consisted merely of the promissory notes of the subscribers. Banks frequently loaned to the subscribers of their stock the funds required for subscription payments. Banks were established in out-of-the-way places to make it difficult for holders of their notes to present them for redemption. The extreme con-

² Cf. Davis R. Dewey, *Financial History of the United States* (New York: Longmans, Green & Co., 9th ed., 1924), p. 205.

fusion respecting the denominations and varieties of notes in circulation has been mentioned elsewhere.³

Given sufficient time, the state legislatures would doubtless have corrected many of the abuses of their chartered banks—as indeed they attempted to do, in some cases before, and in others after, the Civil War; nevertheless, the presence of the national banking system was an important stabilizing factor in the postwar period. Notable reforms were under way in state banking in the prewar period, and in an earlier chapter we reviewed some of them, such as the Suffolk Bank system of note clearance, the introduction of the safety-fund method of banking, and the adoption of “free-banking” laws.

TABLE 25
GROWTH OF STATE-CHARTERED BANKING, 1837-1862
(Dollar amounts in thousands)

Year	Number of banks	Capital	Notes	Deposits	Loans
1837	758	\$290,772	\$149,186	\$127,397	\$525,115
1840	907	358,442	107,000	75,696	462,896
1845	707	206,046	89,608	88,021	288,617
1850	824	217,317	131,367	109,586	364,204
1855	1,307	332,177	187,000	190,400	576,144
1860	1,562	421,880	207,102	253,802	691,945
1862	1,496	419,761	183,938	297,127	647,686

Source: House of Representatives, Ex. Doc. 25, 37 Cong., 3 Sess., pp. 210-211.

“Pet Banks.”—When President Jackson discontinued the deposit of federal funds in the second Bank of the United States, certain state institutions, called the “pet banks,” were selected as depositories. A bank so selected was not a “wildcat” enterprise, for it was obliged to satisfy strict standards and to subject itself to federal supervision. It had to maintain the redeemability of its notes in specie; it could be called upon to pledge collateral to safeguard the government deposits, and this was obligatory when such deposits exceeded one half of the bank’s capital; it was required to make weekly reports of condition; and it was subject to examination by the Secretary of the Treasury at any time.

Despite these precautions, several of the depositary banks ran into difficulties in the panic of 1837 and subsequently, and the federal government suffered losses. This experience prompted the government to devise a means to act as its own fiscal agent, that is, to take care of its receipts and disbursements in its own banking offices.

THE INDEPENDENT TREASURY

An independent treasury system of the character mentioned was established in 1840, but because of a change of administration its operations were

³ See above, pp. 106-107.

suspended in the following year. In 1846, the system was established on a permanent basis, and the federal government undertook to be its own banker by collecting public revenues in the Treasury in Washington and in subtreasuries located in important cities throughout the country, and by making disbursements directly from these offices. From 1846 until 1863, when legislation for the establishment of a national banking system was enacted, the federal government did not employ the services of chartered banking institutions as depositaries or fiscal agents; moreover, as it refused to accept any of the notes issued by state banks, it operated wholly upon a specie basis.

The drawing of specie into the government's treasuries through tax collections and the subsequent disbursement of these funds naturally affected the quantity of currency available for commercial transactions, and the Treasury's fiscal operations therefore tended to disturb normal business activity. Before the Civil War, the difficulties were not grave because of the relative unimportance of the government's operations; but after the war, the disturbances became more pronounced, so much so that the Treasury came to rely more and more upon the national banks as depositaries, as was permitted by the National Bank Act.

Even then, the arrangement was not entirely satisfactory, for the Secretary of the Treasury had full power to select depositary banks as well as to decide upon the division of funds among the banks and the treasuries. The quantity of money available for commercial transactions, therefore, could be materially affected by decisions of the Secretary, and his powers obviously could be used for political purposes. Finally, in 1913, the federal reserve banks were authorized to act as depositaries and fiscal agents of the federal government; and they have fulfilled these duties with such success that the independent treasury system was discontinued by legislation enacted in 1920.

The National Banking System

ESTABLISHMENT OF THE SYSTEM

When Salmon P. Chase was chosen in 1861 as Secretary of the Treasury in the Cabinet of President Lincoln, he began almost immediately to promote the establishment of a new national banking system—not a banking system of an exclusive character as typified by the two Banks of the United States, but a system of numerous unit banks to operate with federal rather than with state charters. Such institutions, he believed, would be able to supply a uniform currency which would be acceptable throughout the country and which would bring about a gradual elimination of the notes of the state-chartered banks. Chase first made his proposal to Congress in 1861 but it was not acted upon, and a bill introduced in the following year was defeated in the House. Although President Lincoln recommended the

adoption of Chase's plan in his message to Congress in December, 1862, the proposal was again defeated in the House in January, 1863. The administration then turned to the Senate for support, and that body was able to pass the bill by a narrow margin; the House then concurred, and the legislation was signed by the President on February 25, 1863.

So few national banks were established, so few state banks converted to national charters, and so defective was the legislation of 1863 in general, that it was replaced in entirety by a new act which became law on June 3, 1864. Hence it is the act of 1864 which is the legislative foundation of the present national banking system.

No useful purpose would be served in detailing the provisions of the acts of 1863 and 1864, nor the numerous amendments which have since been added to the basic legislation. Suffice it to say that national banks could be established with capital of \$50,000 to \$200,000, depending upon their location; that they were required to purchase treasury bonds in an amount equal to one third of their capital stock or \$30,000, whichever was greater, on the basis of which they were permitted to issue notes; and that they were made subject to the general supervision of the Comptroller of the Currency, an officer of the Treasury Department.

In view of the obligation of banks organized under the National Bank Act to invest a large portion of their capital in government bonds, many financial historians believe that the creation of a market for government issues at a time when the Treasury's credit position was weak was a prime objective of the legislation. If so, the objective was not realized, for the Civil War was almost concluded before much progress was made in the organization of new national banks. Indeed, the national banking system would probably have remained of negligible importance had not Congress, by legislation enacted in February, 1865, placed an annual tax of 10 per cent on the face value of outstanding state-bank notes, effective July 1, 1866. A tax of such weight was obviously prohibitive in character, for the state banks would have had to lend their notes at a rate of interest in excess of 10 per cent to enjoy any net income whatever.

As it was quite commonly believed at that time that the issue of notes was a primary function of commercial banking, and that a bank could not profitably operate without that function, most of the state banks either suspended operations or surrendered their state charters and obtained national ones. Thus though there were 1,562 state banks in operation in 1860, only 247 remained in 1868; and, on the other hand, though only 66 national banks were in operation in the fall of 1863, the number had increased to 1,640 in 1868.⁴ In the closing years of the 1860's, therefore, the United States achieved a degree of unification in commercial banking—so far as federal jurisdiction is concerned—never equaled before or since.

⁴ *Annual Report of the Comptroller of the Currency*, various years.

REVIVAL OF STATE-CHARTERED BANKING

Even before the Civil War, especially in the larger cities, rapid progress had been made in the use of checks drawn upon bank demand deposits as a means of payment; and the development was greatly accelerated in the 1870's. Many bankers thus came to realize that, after all, it would be possible to operate banks profitably though they might lack the right to issue notes. Such a realization led to a revival of interest in state-chartered banking. Applications for state charters were granted in increasing numbers especially after 1880, and by the end of the century, the number of state banks exceeded that of national banks. In 1899, 4,253 state banks were in operation as compared with 3,583 national institutions. Charters for both types of banks were granted liberally in the early years of the present century, but at a more rapid rate for state banks. A total of 14,512 state banks were in operation in the year 1914, and approximately only half as many—7,525—national institutions.⁵

The preference for state charters indicated by the foregoing figures may be explained by the fact that state banking regulations were less stringent than those of the national government; that state capital and reserve requirements were customarily lower; and that in most states the banks had privileges denied to national institutions, such as the granting of real-estate loans, the operation of trust departments, and the right to distinguish between demand and time deposits in calculating required reserves.

DEFECTS OF THE BANKING SYSTEM

Principal Weaknesses.—With the passing of time, the inadequacies of the American banking system became apparent, although it required many years to develop a comprehensive program of reform. Previous chapters described several of the outstanding defects of the banking system before the adoption of the Federal Reserve Act: (1) The national bank-note currency was inadequate in that it failed to expand and contract according to the needs of the business community, for the reason that increases and decreases in the quantity of notes in circulation depended more upon federal fiscal operations than upon the volume of business activity. (2) Moreover, the mechanism for the clearing and collection of checks was defective—a situation characterized by universal remittance charges and the roundabout collection of out-of-town checks. (3) The unhealthy state of the banking reserves represented another important weakness in the banking system: the unwholesome concentration of reserves in New York; a pyramiding of reserves, resulting from the privilege of redepositing them with correspondent banks; a scattering of reserves, because of the requirement that each bank keep a substantial portion of its reserves in its own vaults; a rigidity of reserve requirements fixed by law; and a failure to distinguish between time and demand deposits in determining the size of reserves.

⁵ *Annual Report of the Comptroller of the Currency*, various years.

Other Shortcomings.—In addition to these outstanding defects of the banking system before 1913, several other varieties of shortcomings were widely recognized.

4) The relationship between the federal Treasury and the commercial banks was defective because of the operations of the independent treasury system, and this was true despite the fact that national banks could be used as fiscal agents and depositories. The allocation of funds between the treasuries and the depository national banks was not always planned in the most intelligent way; and federal fiscal activities tended at times to cause business disturbances.

5) Banking was highly decentralized, as no agency to promote coordination and to exercise a unifying supervision existed. Hence the adoption of a program to prevent or to ameliorate financial crises was impeded because of the diverse interests of the numerous state banking systems.

6) The foreign exchange facilities of the country were of a primitive character. A great amount of financing for American concerns was handled through London rather than through our own banks. One reason for this situation was that national banks were not permitted to accept drafts drawn upon them under letters of credit—the principal method of financing the movement of goods in foreign trade. Although some state institutions had the power to accept time drafts, there was no well-developed discount market in which the accepted drafts could be sold.

7) Interest rates in various regions of the country varied from one another by considerable margins. In other words, there was little regional flexibility of credit; for it was possible to have an excess of funds in one section of the country with no opportunities for lending, and, at the same time, a dearth in other sections.

Movements Toward Reform.—Although the defects of the banking system enumerated in the foregoing paragraphs were long recognized, it was not until the country had suffered two severe crises, those of 1893 and 1907, that steps were taken to correct them. Bryan's campaign for free silver in 1896 and 1900 aroused a great deal of interest in the problems of banking and currency, but his failure to win the presidential office delayed an immediate joining of issues in Congress. The panic of 1907 was especially important in showing the need of fundamental changes, for it was a banking panic—a "rich man's crisis"—rather than a general business collapse, in so far as the underlying economic conditions of the country were sound.

The Aldrich-Vreeland Act of May 30, 1908, was passed as a piece of stopgap legislation particularly designed to take care of the inelasticity of the national-bank currency. But it was important also in that it called for the appointment of a national commission charged with the task of studying the whole range of banking and currency problems and of suggesting a program of reform. From the studies of the National Monetary Commission, and the

subsequent discussion in Congress and elsewhere, emerged the Federal Reserve Act of December 23, 1913.⁶

Major Banking Developments since 1913

FEDERAL RESERVE ACT

Although several chapters elsewhere in this text are devoted to the organization and work of the Federal Reserve System, it is desirable at this time to outline briefly the principal innovations of the Federal Reserve Act.

1) A degree of unification and coordination in banking was to be achieved by the establishment of twelve regional "central banks" and the creation in Washington of a board vested with supervisory powers. The twelve banks were expected to promote the unification of banking in their respective districts, in that state banks were invited voluntarily to share the "membership" in the system required of national banks.⁷ The Federal Reserve Board, together with the officials of the regional banks, was thought to have adequate powers to meet future emergencies. It was expected that the federal reserve banks would in time accumulate most of the gold reserves of the country, so that the metallic foundation of the nation's monetary and banking system would be marshaled under the management of one group of authorities.

2) The inelasticity in the supply of our hand-to-hand money was to be overcome by the issuance of federal reserve notes, with reserves and collateral consisting of gold and commercial paper, rather than of government bonds; and, according to the original design, the national-bank notes were to be replaced by the federal reserve bank notes.

3) The weaknesses in the administration of bank reserves were to be corrected by the requirement that member banks keep a large portion (and by an amendment of 1916, all) of their reserves permanently on deposit with the federal reserve banks. This provision made possible a reduction in the size of required reserves.

4) National banks were authorized to distinguish between time and demand deposits, and greatly to reduce the reserve held in relation to the former. For the first time, therefore, they were enabled to compete on relatively equal terms with the state banks in accepting savings and other time accounts.

5) With regard to the clearing and collection of checks, the Federal Reserve Act authorized the Federal Reserve Board to function as a clearing house for the twelve reserve banks; and the reserve banks in turn were

⁶ Some additional details with respect to the immediate background of the Federal Reserve Act are presented below, pp. 327-330.

⁷ Although the number "twelve" is used here, the Federal Reserve Act actually called for the establishment of not less than eight or more than twelve regional banks. See Section 2 of the original legislation.

required to perform clearing services for the member banks within their respective districts, when called upon to do so by the board.

6) As a means of promoting the expansion of foreign trade financing within the United States, national banks were authorized within certain limits to issue letters of credit and to accept drafts drawn under them; other provisions of the legislation were designed to encourage the establishment of foreign branches by American banks.

7) As for the relations between the Treasury and the commercial banks, the legislation authorized the reserve banks to act as fiscal agents and depositaries for the government; and, as was mentioned earlier in the chapter, these services were performed so well that the independent treasury system was discontinued by legislation adopted in 1920.

8) Finally, national banks were authorized, with the permission of the Federal Reserve Board, to open trust departments—another innovation which tended to equalize competition between national and state institutions.

BANKING COLLAPSE

The various provisions of the Federal Reserve Act, it is evident, were specifically designed to eradicate most of the defects which had been sources of weakness in the banking structure for many years. So well planned were some of the features of the legislation that a number of the difficulties were permanently removed—what had previously been “problems” of money and banking were problems no longer. This has generally been true with respect to the elasticity of our bank note currency, the facilities for the clearing of checks, the working relationship between the banking system and the Treasury, and the concentration of national reserves.

One may well ask why the banking system collapsed in the period from 1930 to 1933 if the Federal Reserve Act was really effective in accomplishing reforms. The answer to this question is not difficult to find: the reform legislation of 1913, while removing many of the defects of the banking system as a system, *did very little to strengthen the individual commercial bank*. Though some progress was made toward a unification of the banking system, a substantial measure of success was not achieved because of the reluctance of state banks to become members of the Federal Reserve System. On the whole, standards of bank organization and management were not raised. The country continued to be served or disserved by thousands of small, weak, independent banks having inadequate capital, incapable executives, and poor outside connections. The federal reserve banks were supposed to provide, through rediscounts and advances, additional resources for weak banks; but too frequently the small, undercapitalized banks had no eligible paper to offer.

It must be remembered, too, that the banking collapse did not begin in 1931, but was really under way throughout the period of the 1920's. During that decade, as Table 26 shows, thousands of banks failed, but the

appalling weakness of the banking structure was not immediately realized, because most of the failures occurred in isolated agricultural communities. The long-continued depression of agriculture, extending from shortly after the close of the First World War, placed too great a burden upon the small banks located in farming communities which had their resources almost exclusively invested in farm mortgages and other farm paper. It was only when the collapse spread to the cities at an accelerated pace after 1929 that the frailty of the banking system was recognized as a national problem.

TABLE 26
BANK SUSPENSIONS IN THE UNITED STATES, 1921-1932*

Year	All banks	National banks	State member banks	State nonmember banks	Total deposits (thousands of dollars)
1921	505	52	19	434	\$ 172,188
1922	366	49	13	304	91,182
1923	646	90	32	524	149,601
1924	775	122	38	615	210,151
1925	618	118	28	472	167,555
1926	976	123	35	818	260,378
1927	669	91	31	547	199,329
1928	498	57	16	425	142,386
1929	659	64	17	578	230,643
1930	1,350	161	27	1,162	837,096
1931	2,293	409	107	1,777	1,690,232
1932	1,453	276	55	1,122	706,188

* Including private banks but excluding mutual savings banks.

Source: *Federal Reserve Bulletin*, September, 1937, pp. 868-873.

Early Emergency Legislation.—Before the adoption of the comprehensive reconstruction legislation of the Roosevelt Administration, several measures were passed by Congress to stem the banking collapse. In October, 1931, in accordance with a suggestion of President Hoover, the National Credit Corporation was formed as an agency through which the banks were expected to aid one another. The corporation was authorized to issue \$1,000,000,000 of debenture bonds, and banks of sound condition were asked to subscribe for the bonds in an amount equal to 2 per cent of their deposits. The funds so raised were to be loaned to weak banks. To facilitate the granting of loans, the banks in each federal reserve district were to form groups or associations, each to have a loan committee to which needy banks could apply. The loan committees were to pass upon the applications, and, if satisfactory, recommend the loans to the corporation. The plan miscarried, for only about \$135,000,000 was loaned by the National Credit Corporation. The principal disadvantages of the project were that all the banks in an association were required to guarantee the loans made, and that, even when in extreme need, bankers hesitated to disclose their condition by applying for loans to their own associates.

A better-designed project to save the banking system was launched in the establishment of the Reconstruction Finance Corporation by an act of Congress adopted on January 22, 1932. The RFC was supplied by the Treasury with \$500,000,000 of capital and was authorized to sell either to the Treasury or to the public debenture bonds aggregating (originally) \$1,500,000,000. To employ the funds so raised, the RFC was empowered to make loans to banks, insurance companies, state and city governments, farmers, and to other agencies and individuals. From time to time, the RFC was granted increased resources and enlarged powers, and although it was unable to prevent the final collapse of the banking system, its loans and advances eased the financial situation in many communities and greatly assisted in speeding the reorganization of banking following the collapse.⁸

The Glass-Steagall Act of February 27, 1932, authorized the federal reserve banks to make advances on the promissory notes of groups of five or more banks—at a rate 1 point higher than the highest discount rate in effect—provided that the borrowing banks had no paper eligible for rediscount, and in “exceptional and exigent circumstances” to make advances on any acceptable security to member banks having capital of not more than \$5,000,000. Finally, the Emergency Relief and Construction Act of July 21, 1932, authorized the Federal Reserve Board to permit the reserve banks to make loans directly to those individuals, partnerships, and corporations which were unable to obtain adequate credit accommodations from other banking institutions.

Emergency Banking Act of 1933.—Three days after the publication of President Roosevelt's bank holiday proclamation of March 6, 1933, Congress met in extraordinary session and on that day enacted the Emergency Banking Act.⁹ The President was empowered by this legislation to regulate or prohibit the payment of deposits by all banking institutions, and member banks of the Federal Reserve System were specifically forbidden to transact any banking business during the period of emergency as proclaimed by the President unless permitted by regulations of the Secretary of the Treasury approved by the President.

All national banks in unsound condition were not necessarily to be closed permanently, as such action would have deprived many communities of all their banking facilities. Instead, conservators of closed national banks might be appointed by the Comptroller of the Currency and charged with the duty of rehabilitating and reopening the banks rather than of liquidating them. With the approval of the Comptroller, conservators could make reasonable amounts of existing deposits available for withdrawal, as well as receive new deposits subject to no restrictions as to withdrawals. The conservators were to be assigned the task of preparing plans of reorganiza-

⁸ The work of the RFC is discussed at length in Chapter 34.

⁹ Features of the Emergency Banking Act other than those mentioned here are discussed above, p. 73.

tion which could be put into effect with the consent of 75 per cent of a bank's depositors and other creditors or of two thirds of the stockholders, provided that the Comptroller found the plans to be fair and equitable.

The Emergency Banking Act authorized national banks, upon the approval of the Comptroller of the Currency and of the owners of the majority of their outstanding stock, to issue nonassessable preferred stock which could be sold as a new source of capital to the general public or to the RFC.

Reopening of the Banks.—Under the authority of the Emergency Banking Act, President Roosevelt issued an executive order on March 10 to empower the Secretary of the Treasury to issue licenses to member banks in the Federal Reserve System to reopen and to carry on their normal operations. Each member bank was to make application for a license to the federal reserve bank of its district, and the latter was to serve as an agent of the Secretary in granting licenses. The executive order also granted to state banking authorities the right to permit the reopening of such of their banks as were not members of the Federal Reserve System.

Most of the sound banks of the country were permitted to reopen during the first four business days of the week of March 12, and by March 29, approximately 12,800 of the 18,000 banks which had been in operation before the crisis were functioning upon an "unrestricted" basis.¹⁰ The situation of the unsound banks is summarized in Table 27. By the end of the year, 5,998 member banks of the Federal Reserve System had received licenses, while 529 having deposits of \$539,441,000 had not yet been licensed; and 8,253 state nonmember banks were operating upon an unrestricted basis, while 1,432 having deposits of \$683,754,000 were restricted or still closed.¹¹

By a proclamation issued on December 30, 1933, the President surrendered to the state authorities the jurisdiction over state nonmember banks which had been assumed by the federal government by the nation-wide banking holiday proclamation of March 6.

BANKING ACT OF 1933

Having taken care of the pressing necessities of the crisis, Congress turned its attention to the task of reconstructing the banking system, and its efforts resulted in the Banking Act of June 16, 1933, a comprehensive piece of reform legislation. The Banking Act of 1933, one may say, was designed to reach the weaknesses in the banking system which had been overlooked at the time of the adoption of the Federal Reserve Act, and to eliminate defects which had developed since then. The features of the act are treated topically elsewhere in this text, but it is desirable to summarize the important provisions here.

Provisions to Strengthen Individual Banks.—The vital problem of the

¹⁰ *Federal Reserve Bulletin*, April, 1933, p. 209.

¹¹ According to a report of December 27, 1933, excluding banks in receivership.—*Federal Reserve Bulletin*, January, 1934, p. 48.

weakness of the small unit banks was attacked in several ways: the Federal Deposit Insurance Corporation was established to put into operation a permanent plan for the insurance of individual bank deposits beginning July 1, 1934, as well as to administer a temporary plan, providing insurance of \$2,500 per account, beginning January 1, 1934; the authority of national banks to establish branches was enlarged; mutual savings banks and industrial banks (such as the Morris Plan banks) were made eligible for admission to the Federal Reserve System; the capital requirement for new national

TABLE 27
BANK SUSPENSIONS IN 1933

Description	All banks	National banks	State member banks	State non-member banks	Private banks	Total deposits (thousands of dollars)
Banks suspended, January 1 to March 4.....	408	64	22	302	20	\$ 198,417
Banks placed in receivership, March 6 to March 15.....	39	2	1	34	2	15,080
Licensed banks suspended, March 16 to December 31.....	179	9	2	158	10	145,072
Banks not licensed following holiday and later placed in receivership.....	2,122	865	74	1,113	70	2,519,958
Banks granted licenses, July 1, 1933, to December 31, 1936.....	1,242	161	72	1,002	7	716,423
Banks neither licensed nor placed in liquidation or receivership by December 31, 1936....	10	—	3	7	—	1,748
Totals.....	4,000	1,101	174	2,616	109	\$3,596,698

* The significance of this class lies in the fact that the banks included must have been in unsound condition at the time of the national banking holiday, since more than three months elapsed before they were permitted to reopen.

Source: *Federal Reserve Bulletin*, September, 1937, p. 867.

banks established in communities of less than 3,000 population was raised from \$25,000 to \$50,000; several new limitations were placed upon the investment policies of national banks; member banks were forbidden to pay interest on demand deposits and were required to limit interest payments on time deposits according to prescriptions of the Federal Reserve Board; member banks were forbidden to make loans to their own executive officers, and the latter were required to make reports as to their borrowings elsewhere; and the size of the boards of directors of member banks, as well as the stockholdings of directors, became subject to specific limits.

Restrictions upon Group Banking and Underwriting.—As the growth of group banking systems had made certain abuses possible, the Banking Act of 1933 required bank holding companies to obtain permits from the Federal Reserve Board in order to vote the stock of any member bank subsidiary, and stipulated that the permits should be granted only if the holding companies subjected themselves to certain measures of supervision and regulation; it limited the loans which member banks might make to their "affiliates," that is, to holding companies and to other corporations in the same group systems; and it reduced the voting power of the banks organized in group systems in the election of directors of the district federal reserve banks.

Evils which had appeared in connection with the underwriting of investment securities directly or indirectly by commercial banks were attacked by provisions of the Banking Act requiring a substantial divorcement of investment banking and commercial banking.

Expanded Powers of the Federal Reserve Board.—The Federal Reserve Board was given a group of powers to enable it to restrict the use of member bank credit for speculative purposes, for the framers of the legislation felt that the speculative use of bank credit was largely responsible for the stock market debacle of 1929. In this regard, the board was also given the authority to remove officers and directors of member banks adjudged guilty of continued violations of the law or of "unsafe and unsound" banking practices.

Miscellaneous Provisions.—Several additional provisions of the Banking Act of a miscellaneous character may be mentioned: the payment of a franchise tax by the federal reserve banks to the Treasury was discontinued; a Federal Open Market Committee was established to determine at what time and in what volume securities would be bought and sold in the open market by the federal reserve banks; the Federal Reserve Board was given jurisdiction over the international financial transactions of the federal reserve banks; and the double-liability feature was removed from national-bank stock issued after June 16, 1933.

BANKING ACT OF 1935

In passing the Banking Act of August 23, 1935, Congress completed the reformation of the banking system begun in 1933. The 1935 legislation was especially noteworthy in that it effected a thoroughgoing transformation of the Federal Reserve System—a transformation which has been described as follows:

It incorporates into law much of the experience acquired by the System during the more than two decades of its operation. It reflects a broader conception of the System's functions in the country's economic life than existed at the time the System was established; it defines more clearly and fixes more firmly the responsibilities of the Board in Washington and the regional Reserve banks; it permanently removes from the operations of the Federal Reserve banks

and the member banks some of the restrictions which at critical times prevent them from effectively rendering the services to the country for the performance of which they were established; and, finally, it clarifies and simplifies a number of features of the administration of the System.¹²

1) The old Federal Reserve Board was supplanted by a new Board of Governors of the Federal Reserve System, consisting of seven members to be appointed by the President with the advice and consent of the Senate, to take office as of February 1, 1936. The Secretary of the Treasury and the Comptroller of the Currency were removed as *ex officio* members of the board, and the new members were to have longer terms and higher salaries than the members of the old board. The Board of Governors was given many new powers, including the authority to change reserve requirements of member banks within designated limits; the right to pass upon the discount rates charged by the reserve banks; the power to define the nature of demand and time deposits of member banks; and the authority to permit officers, directors, and employees of a member bank to serve one additional banking institution. The Federal Open Market Committee, established in 1933, was reconstituted, with the members of the Board of Governors composing a majority of its membership.

2) For the first time, the question as to who should serve as the principal executives of the federal reserve banks was answered in federal law, for the appointment of a president and a vice-president for each bank was authorized. Apart from the matter of administration, the capacity of the reserve banks to make loans to their member banks was vastly expanded.

3) The permanent plan of deposit insurance as outlined in the Banking Act of 1933 was discarded, and in its place the insurance of individual accounts to the amount of \$5,000 was adopted as a permanent measure.¹³ The Federal Deposit Insurance Corporation was given the authority both to forbid insured banks not members of the Federal Reserve System to pay interest on demand deposits and to limit their interest payments on time deposits.

4) Other provisions of the Banking Act of 1935 were of a "technical" character. Among these, the following are worthy of mention: the authority of national banks to lend upon the security of real estate was liberalized; the double liability attaching to national-bank stock could be removed as of July 1, 1937, by a mere publication of notice by the national banks concerned; in the absence of double liability, national banks were required to accumulate a surplus account equal to that of their capital stock; and the method of calculating required reserves by member banks was adjusted in their favor.

¹² *Federal Reserve Bulletin*, September, 1935, p. 559.

¹³ The act of June 16, 1934, had extended the temporary plan of deposit insurance to July 1, 1935, and had raised the insurance per account to \$5,000 effective July 1, 1934; and the act of June 28, 1935, further extended the temporary plan to August 31, 1935.

RECENT BANKING DEVELOPMENTS

Since the adoption of the Banking Act of 1935, the commercial banks of the United States have not been affected by the enactment of legislation of outstanding importance. The period since 1935, needless to say, has been a turbulent one, and commercial banks have not escaped their share of problems and vicissitudes, but no fundamental changes in organization have occurred. The expansion of the federal housing insurance program, the operations of government banking agencies such as the Reconstruction Finance Corporation and the Commodity Credit Corporation, the inauguration of the national defense policy, and the waging of war—all these and many other factors and events have greatly influenced commercial banking, but not to the extent of encompassing any basic transformation. During the

TABLE 28
COMMERCIAL BANKING IN THE UNITED STATES, 1934-1945*

End of year	All banks	National banks		State banks		Member banks		Nonmember banks	
		Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1934	15,460	5,462	35.3	9,998	64.7	6,442	41.7	9,018	58.3
1935	15,267	5,386	35.3	9,881	64.7	6,387	41.8	8,880	58.2
1936	15,063	5,325	35.4	9,738	64.6	6,376	42.3	8,687	57.7
1937	14,830	5,260	35.5	9,570	64.5	6,341	42.8	8,489	57.2
1938	14,650	5,224	35.7	9,426	64.3	6,338	43.3	8,312	56.7
1939	14,485	5,187	35.8	9,298	64.2	6,362	43.9	8,123	56.1
1940	14,344	5,144	35.9	9,200	64.1	6,486	45.2	7,858	54.8
1941	14,277	5,117	35.8	9,160	64.2	6,616	46.3	7,661	53.7
1942	14,136	5,081	35.9	9,055	64.1	6,676	47.2	7,460	52.8
1943	14,034	5,040	35.9	8,994	64.1	6,735	48.0	7,299	52.0
1944	13,992	5,025	35.9	8,967	64.1	6,811	48.7	7,181	51.3
1945	14,011	5,017	35.8	8,994	64.2	6,881	49.1	7,130	50.9

* Includes some private and industrial banks comprised in the reports of state banking departments, but excludes mutual savings banks.

Source: Derived from *Federal Reserve Bulletin*.

period of the Second World War, the commercial banks assumed many new duties to assist the government and the people to bring the war to a victorious conclusion—duties which included the sale of war savings bonds, the opening of war loan accounts with the federal government, service as depositaries for withheld taxes payable to the federal government, the operation of offices and branches at military reservations, and the management of merchants' ration accounts in connection with the regulations of the Office of Price Administration—but, again, such added functions did not represent a fundamental change in the structure of American commercial banking.

A decrease in the number of independent commercial banks has been a distinct trend in recent years as the figures of Table 28 clearly show. The

decline in numbers has been slightly more pronounced in the field of state-chartered banking than in the field of national banking, amounting to 8.1 per cent for the latter and 10.0 per cent for the former from the end of 1934 to the end of 1945. Only a small proportion of the decrease resulted from bank suspensions caused by financial difficulties (see Table 29); and the

TABLE 29

NUMBER AND DEPOSITS OF COMMERCIAL BANKS SUSPENDED, 1934-1945^a

(Deposits in thousands of dollars)

Year	All banks		National banks		State member banks		State nonmember banks	
	Number	Deposits	Number	Deposits	Number	Deposits	Number	Deposits
1934	57	36,937	1	40			56	36,897
1935	34	10,015	4	5,313			30	4,702
1936	44	11,306	1	507			43	10,799
1937	59	19,723	4	7,379	2	1,708	53	10,636
1938	55	13,012	1	36	1	211	53	12,765
1939	42	34,998	4	1,341	3	24,629	35	9,028
1940	22	5,943	1	256			21	5,687
1941	8	3,726	4	3,144			4	582
1942	9	1,702					9	1,702
1943	4	6,223	2	4,982			2	1,241
1944	1	405					1	405
1945	0	0						

^a A suspended bank is one closed temporarily or permanently because of financial difficulties, but the data do not include those banks whose deposit liabilities were assumed by other banks at the time of closing.

Source: Federal Reserve Bulletin.

remainder is attributable to voluntary liquidations, mergers, and the absorption of independent banks into branch systems.

The percentages given in Table 28 indicate that little change is taking place in the proportion of national and state banks serving the people of the United States, but they show a decided trend in the direction of membership in the Federal Reserve System. Thus from the end of 1934 to the end of 1945, memberships in the Federal Reserve System increased by 6.8 per cent, while the number of nonmember banks declined by 20.9 per cent.

Part IV

CENTRAL BANKING IN THE UNITED STATES

A General Survey of Central Banking

Origin and Structure of the Federal Reserve System

Operations of the Federal Reserve Banks

Chapter 20

A GENERAL SURVEY OF CENTRAL BANKING

The Role of the Central Bank

NATURE OF THE CENTRAL BANK

A central bank is so called because it occupies a central or pivotal position in the monetary and banking structure of the country in which it operates. Because it is vested with the authority to exercise a special group of powers—powers which other banking institutions do not possess or which they possess in only a limited degree—the central bank is able profoundly to influence monetary and credit conditions and developments. As the special powers of the central bank are designed to enable it to control the volume of hand-to-hand money and of bank credit available in the country, it may be defined as *an institution which is charged with the responsibility of managing the expansion and contraction of the volume of money in the interests of the general public welfare*. Thus the preamble of the legislation which established the Bank of Canada in 1934 states that that bank is “to regulate credit and currency in the best interests of the economic life of the nation, to control and protect the external value of the national monetary unit and to mitigate by its influence fluctuations in the general level of production, trade, prices and employment so far as may be possible within the scope of monetary action.”

Each country of the world—there are a few minor exceptions—now has a central bank to which has been delegated by law, or to which has been allocated by a kind of evolutionary process, the special powers which clearly distinguish it from all other financial institutions within that country. Thus the strategic role of the Bank of England sets it apart from the British joint-stock commercial banks; the position of the Bank of Canada is easily distinguishable from that of the chartered commercial banks which operate in that country; and the functions of the federal reserve banks of the United States obviously place them in a category separate from that of the commercial banks of the national and state systems.

Ordinarily a country has only one central bank, although this rule is subject to exceptions. In this regard, it is desirable to distinguish between

the central bank, as a specific institution, and *central banking*, as the exercise of a special group of powers. The powers may be parceled among two or more institutions, although only one of them may be known as the "central bank." Thus it is not illogical to speak of the "central banking operations" of the United States Treasury, although nobody alludes to the Treasury as a "central bank." As a matter of fact, the "central banking operations" of the Treasury have long been of importance, even since the establishment of the Federal Reserve System, but the federal reserve banks are our central banks—or the Federal Reserve *System* is our central *bank*, if one prefers to put it that way.

CHARACTERISTICS OF THE CENTRAL BANK

Most central banks are distinguished, not only because they are single institutions within their respective countries, and because they are the repositories of an extraordinary group of powers, but also because (1) they are not primarily profit-seeking enterprises, (2) they are subject to close control and participation by the national government, and (3) they carry on most of their operations with other banking institutions rather than with the general public. In not all instances, however, are these characteristics clearly observable, for the reason that all central banks have not been established according to an identical pattern.

Profit Motive.—Because the operations of the central bank are such as profoundly to affect the monetary and credit situation, they cannot be undertaken solely for the purpose of providing income. As the purchase of securities by the central bank, for example, has the normal result of expanding the primary reserves of the commercial banks, such acquisitions must be avoided if it is thought that the addition to primary reserves would have consequences harmful to the general welfare. Hence the central bank must reject many opportunities for profitable investment in the interest of maintaining stability in financial conditions. In general, the central bank must at all times hold a considerable quantity of idle reserves in order that it may be in a position to come to the assistance of the commercial banks in times of economic difficulty.

To reduce the appeal of the profit motive, the laws which govern the operations of central banks customarily limit the dividends which they may pay to their stockholders. Where the central bank is wholly owned by the national government, of course, the profit motive may be reduced to a position of negligible significance; and where the central bank is wholly or partially owned by private interests, limitations upon the dividends which may be paid are usually thought to be sufficient to give the public responsibilities ascendancy over profit considerations. In many instances, too, the national government shares in the profits of the central bank, even though it is owned by private interests, so that the expansion of profits may result only in increasing the contribution which the central bank must make to

the government, rather than in providing a surplus for immediate or future dividends for the stockholders.

Government Control and Participation.—The central bank is usually subject to more extensive and detailed regulations with respect to its operations than are other financial institutions. Though the operations of the central bank, in the aggregate, are much more significant than are those of any other type of bank, their scope is strictly limited. Limitations are imposed not only by specific provisions of law, but also by the active participation of the national government in the affairs of the central bank. In any case, there must always be a close "working relationship" between the central bank and the national government, which means that operational decisions of the central bank must be made only after consultation with, and often only with the approval of, the fiscal officials of the government. Beyond such indirect participation, many national governments choose the executive officers of the central bank or approve their nomination, and many name all or a portion of the board of directors.

Transactions with Other Banks.—Central banks are often referred to as "bankers' banks" for the reason that they confine the major share of their activities to transactions with other banking institutions. They make available to individual commercial banks many services similar to those which the commercial banks provide for the general public. In some instances, the laws which restrict the operations of central banks prevent their direct participation in business transactions with nonbanking institutions and individuals; and in other instances, the central banks have voluntarily discontinued those activities which were formerly concerned with direct public dealings. In this respect, however, notable exceptions may be cited, such as the Bank of France, which is not only the central bank of France but also its principal commercial bank, the Commonwealth Bank of Australia, the Bank of Finland, and the National Bank of Egypt.

Most theorists believe that business transactions between the central bank, on the one hand, and individuals and nonbanking enterprises, on the other, must be strictly curtailed or eliminated if the central bank is to exercise its special powers in an adequate manner. If its policies are to be made fully effective, the central bank must have the cooperation of the commercial banks, and cooperation is likely to be withheld or to be given only grudgingly when the central bank's operations are of such character as to make it an important competitor of the commercial banks. Furthermore, the legitimate policies of the central bank, which is supposed to be primarily interested in advancing the public welfare, may at times run counter to the policies of the profit-seeking commercial banks, which are presumably concerned with the welfare of their stockholders; and a reconciliation of the antagonistic policies may be impossible if the central banking and commercial banking functions are combined within a single institution.

POWERS OF THE CENTRAL BANK

The principal function of the central bank, as our definition has indicated, is to control the expansion and contraction of the volume of money in the interests of the general welfare. The fulfillment of this function generally requires the endowment of the central bank with a group of powers which may be classified under three heads: (1) powers with respect to note issue, (2) powers as depository of banking reserves, and (3) powers as fiscal agent of the national government.

Notes of the Central Bank.—Throughout the world at the present time, the authority to issue circulating notes has generally been removed from the commercial banks and lodged in the hands of the central bank. In some countries, it is true, some or all of the commercial banks retain limited note-issue privileges, but in such countries the "residual" powers of note issue which are vested in the central bank far overshadow those enjoyed by the commercial banks; in a word, the preponderant volume of notes in circulation are those of the central bank. And in many countries, the notes of the central bank are the only class of hand-to-hand paper money in circulation.

Having a full or near monopoly of the note issue, the central bank is obviously in a position to control the volume of circulating hand-to-hand money. It has the responsibility of providing an adequate supply of notes, so that business activity will not be impeded by a lack of mediums of exchange, and, at the same time, it must guard against excessive supplies, since redundancy makes for depreciation. If the country maintains a metallic standard, in its management of the note issues the central bank must take proper measures to insure at all times the convertibility of the notes into the standard metallic money.

Central Bank as Reserve Depository.—The central bank serves as the principal custodian of the reserves of the commercial banks of the country. The commercial banks ordinarily keep within their own vaults reserves in cash only sufficient to take care of their day-to-day needs, and, by the requirements of law or by the dictates of custom, they maintain deposits with the central bank as the major element among their primary reserves. In serving as reserve depository in a country which maintains a metallic standard, the central bank must necessarily hold the major portion of the country's standard metallic money; thus, although the reserves of the commercial banks may be maintained in the form of deposit balances with the central bank, such deposit balances are "backed" in full or in part by standard money in the possession of the central bank.

The responsibility of the central bank with respect to commercial bank reserves extends far beyond mere safekeeping. Since the capacity of the commercial banks to create money in the form of demand deposits is dependent upon the volume of their primary reserves, the central bank must be in a position to control the size of these reserves as a means of controlling the volume of money in circulation. Thus when we add to the note-issue

powers of the central bank its capacity to manage the primary reserves of the commercial banks, we see that the central bank has the means at hand to fulfill its function—it has the means to limit the volume of the two principal kinds of money in modern monetary systems, namely, notes and demand deposits.

One way by which the central bank can control the size of commercial bank primary reserves is by granting or refusing to grant loans to the commercial banks. In a word, the central bank may provide additional reserves for the commercial banks by merely giving them loans in the form of credits in their reserve deposits; and it may wipe out commercial bank primary reserves by withdrawing loans previously granted. In this respect, the central bank is often described as the “lender of last resort,” for it is supposed to have the capacity to extend further loans when all other sources of credit have evaporated. If the central bank carefully preserves its position as “lender of last resort,” its services in times of economic crisis may well be of invaluable benefit in preventing an utter breakdown of the banking facilities of the country. Another means at the disposal of many central banks to influence the size of commercial bank primary reserves is their authority to buy and sell securities of various kinds—commercial paper, government bonds, and the like—in the open market. The purchase of securities by the central bank generally has the same effect upon commercial bank reserves as have direct loans to the commercial banks; and the sale of securities affects such reserves in the same way as the cancellation of loans previously negotiated by the commercial banks at the central bank.

In a country which maintains a metallic monetary standard, the responsibility of the central bank as reserve depository presupposes its ability at all times to redeem in standard money or in hand-to-hand money the reserve balances of the commercial banks. The convertibility of such reserve balances into hand-to-hand money is generally assured by the central bank's power to create additional quantities of bank notes for issue; and convertibility into standard money is made possible because, as we have said, the central bank is the principal custodian of the country's standard money.

As a more or less incidental aspect of its position as reserve depository, the central bank is able to provide excellent facilities for the clearing of checks and other interbank obligations among the commercial banks. Since each commercial bank maintains a balance with the central bank, all the commercial banks can adjust their obligations to each other by merely having their reserve balances debited or credited, as the situation may require.

Central Bank as Fiscal Agent.—The services of the central banks as the principal fiscal agent of the national government include the holding of the government's deposit account, the collection of items deposited therein, the cashing of checks drawn against it, the transfer of funds throughout the country and abroad, the purchase and sale of securities for the account of government trust funds, assistance in the flotation of government securities

and in their exchange and redemption, and the payment of interest upon outstanding government obligations.

More important than these routine types of operations, however, is the central bank's responsibility to guard against the spread of disturbances and maladjustments in the economic system which may result from the government's fiscal operations. The significance of this responsibility can well be understood when one reflects upon the almost astronomical scope of government taxation, borrowing, and expenditure in recent years. Because of its strategic position as controller of the volume of money in circulation, the central bank can intelligently advise the national government as to the best methods of procedure, and can take appropriate steps to protect the commercial banks, as well as business enterprise in general, from a too forceful impact of government fiscal operations.

Origin and Development of Central Banks

Only since the beginning of the twentieth century has the importance of central banking gained wide recognition. In earlier periods of the modern era, central banks were in existence, and central banking functions were performed, but central banking as such was not awarded a distinct sphere in the theory and practice of finance. But the complex financial problems which the wars and economic crises of the past few decades have produced have, so to speak, catapulted the principles of central banking and the operations of central banks into the center of the economic stage. And all prospects point to the continual expansion of the role of central banks in the future.

The earlier central banks, such as those of England, Sweden, France, the Netherlands, Austria, Norway, and Denmark, were established at a time when "modern" banking facilities, generally speaking, were not well developed. Although some of them had special relations with their respective governments from the beginning of their existence, their position was not profoundly different from that of other existing institutions. Only by a kind of evolutionary process—a process of trial and error—did they come to occupy a pivotal status in the monetary and banking structure. On the other hand, the later central banks, and particularly those created in the twentieth century, have been superimposed, as it were, upon fully organized banking systems; and because their statutes have been drawn in such manner as to incorporate the experience of the older banks, it has been possible to emphasize their unique position from the very beginning.

BANK OF ENGLAND

The development of the Bank of England provides a vivid illustration of the evolutionary process by which the older central banks came to hold a dominant position in the banking systems of their respective countries. Although the Bank of England was established almost forty years after the

birth of another present-day central bank, the Riksbank of Sweden, it is awarded the title of "mother of central banks" because it led the way in acquiring and exercising central banking powers.

The Bank of England was created in 1694 as a joint-stock company by an act of Parliament; it was granted the authority to carry on a general banking business, including the right to buy and sell coin and bullion, to deal in bills of exchange, to issue its own notes, and to make loans. In return for its privileges, it was required to lend the entire amount of its original capital, £1,200,000, to the government—and this fact, indeed, explains why Parliament was willing to grant it a charter. Although the charter was granted for only a ten-year period, it was extended from time to time, usually on condition that further loans be granted to the government or that the interest rates applicable to outstanding loans be reduced.

From the beginning, therefore, the Bank of England occupied a position of special importance as the government's banker, but other prerogatives were added only in the course of many decades. Although it was the only joint-stock bank organized until 1826, it had for competitors in the commercial field the private banks which were proprietorships and partnerships. As the private banks customarily issued their own notes, the grant of the note-issue power to the Bank of England did not give it a monopoly in that respect. Legislation adopted in 1709, however, forbade partnerships composed of more than six persons to issue circulating notes in England.

The Bank of England, in performing its duties as the government's banker, was brought into close contact with the private banks, and the latter soon recognized the convenience of keeping deposit balances with it. Deposit balances were especially advantageous because the bank was the principal issuer of notes, and the private banks could obtain supplies of notes in time of need by merely drawing upon their deposit accounts. By the end of the eighteenth century, the private banks had generally adopted the policy of keeping on hand only a sufficient supply of cash for day-to-day needs, maintaining the remainder of their reserves with the Bank of England.

By legislation adopted in 1826, Parliament authorized the organization of joint-stock commercial banks and empowered those located outside a sixty-five-mile radius of London to issue their own notes. Thus the privileged position of the Bank of England in joint-stock banking, as well as in note issue, was undermined; but legislation adopted in 1833 made its notes legal tender while failing to grant that privilege to the notes of other banks; and the Bank Act of 1844 limited the notes of the other joint-stock banks to fixed amounts, and provided for the suspension of their note-issue authority under certain circumstances.

The new joint-stock banks, of which more than a hundred were established in the decade beginning in 1826, followed the lead of the private banks in keeping the major portion of their reserves on deposit with the Bank of England. Its position as principal reserve depository was strength-

ened in 1854 when arrangements were made for the settlement of obligations among the joint-stock banks by means of adjustments in their reserve accounts at the bank.

The duty of the Bank of England to control the volume of money in circulation came gradually to be recognized, especially after the adoption of the Bank Act of 1844. It assumed leadership in meeting difficulties occasioned by the various crises of the latter part of the nineteenth century, as in 1847, 1857, 1866, 1873, and 1890. On most of these occasions, the Bank of England was empowered through the "suspension of the Bank Act" to turn out emergency issues of its notes, and thus its status as the "lender of last resort" came to be accepted. In 1890, when the great banking house of Baring Brothers failed, the Bank of England was able to avert a panic by persuading other financial institutions to join with it in guaranteeing the payment at maturity of all outstanding Baring obligations.

OTHER EARLY CENTRAL BANKS

Further to illustrate the development of central banking, a few words regarding the origin and growth of other early central banks may be added. The Riksbank of Sweden was established by private interests in 1656, and was reorganized as a state bank with capital supplied wholly by the government in 1668. Although the Riksbank enjoyed the sole right of note issue during the greater part of its earlier career, and although this right was confirmed by legislation adopted in 1809, the joint-stock banks which came into prominence after 1830 assumed the right to issue their own notes. In 1897, however, the note-issue monopoly was restored to the Riksbank by legislation which provided for the gradual elimination of the notes of other banks. The legislation of that year also greatly extended other powers of the Riksbank and thus gave it a status comparable with that of the central banks of other countries.

The Bank of France was established in 1800 by a decree of Napoleon. The government contributed to its capital, but most of the capital was supplied by private shareholders. Although the Bank of France was privately managed, it had close relations with the government from the beginning. At the time of its establishment, it shared the note-issue privilege with other banks, but legislation adopted in 1803 gave it the exclusive right to issue notes in Paris, and a decree of 1808 extended the exclusive right to all communities in which it had branches. In 1848, after the overthrow of the government of Louis Philippe, other existing joint-stock banks—the so-called departmental banks—were by government decree fused with the Bank of France, and thus the latter gained the exclusive right of note issue throughout the country. This fusion explains why the Bank of France has since been not only the central bank of France but also its principal commercial bank.

The Bank of the Netherlands was organized in 1814 as the successor of the Bank of Amsterdam. The latter, which had been launched in 1609,

became insolvent in the closing years of the eighteenth century, and efforts to reorganize it failed. The Bank of the Netherlands was privately capitalized, but the government from the beginning participated in its management. Throughout its career, this bank has had the sole right of note issue in the Netherlands.

A "tax" placed upon landed property provided the capital for the Bank of Norway, which was created in 1816, but the "tax" might better be described as a forced subscription to the bank's capital, since the landowners received shares in proportion to their payments. A principal purpose of this bank was to promote improvements in agriculture, and it was anticipated that mortgage loans upon farm land would constitute a major portion of its business—much in the manner of the "banks" of the American colonial period. Its earlier issues of notes, too, were based upon the security of mortgages. Thus the development of the Bank of Norway into a modern central bank took it far from the field of operations which was conceived by its founders.

Other early central banks include the National Bank of Austria, which was created in 1817 and which was reorganized as the Bank of Austria-Hungary in 1878; the National Bank of Denmark, which was established in 1818 as a privately owned institution to succeed a state bank opened in 1813; the National Bank of Belgium, founded in 1850; the Bank of Spain, organized in 1856 to succeed a state bank founded in 1829; the Bank of Russia, a state-owned institution established in 1860; the Reichsbank of Germany, which was erected in 1875 upon the foundation of the old Bank of Prussia; and the central banks of Portugal, Roumania, Bulgaria, Servia, Egypt, Algeria, Turkey, Japan, and Java.

LATER CENTRAL BANKS

In the present century, and particularly in the period since the close of the First World War, the establishment of central banks has progressed at a rapid rate. The United States, as the only major nation lacking a central bank, had long felt the need of one, and most of the minor nations have also realized the need of facilities such as had been produced by the evolutionary process in England, France, Sweden, and other countries. The newer central banks, therefore, are for the most part institutions specifically created for the sole purpose of exercising central banking powers; hence their capacity to engage in commercial banking is generally subject to strict limitations. In some instances, however, existing commercial banks have been converted into central banks, as in Australia, Uruguay, Estonia, Mexico, and Paraguay.

The opening of the federal reserve banks of the United States in 1914, one might say, pointed the way for the establishment of full-fledged central banks having few if any powers to carry on a general commercial banking business, for many of those subsequently organized have been modeled upon

the Federal Reserve System. The international monetary conference held in Brussels in 1920 recommended the establishment of central banks by all countries, not only to facilitate internal monetary management but also to make possible an increased measure of international cooperation in the monetary sphere. More than a score of central banks have been formed since then, beginning with the South African Reserve Bank in 1921 and continuing to 1943, when the Central Bank of Eire was opened for operations. Among the more important of the recently established central banks are the following: Commonwealth Bank of Australia, the National Bank of Hungary, and the Bank of Poland, established in 1924; the National Bank of Czechoslovakia, 1925; the Central Bank of China, 1928; the Central Bank of the Turkish Republic, 1931; the Bank of Canada, 1934; and the Reserve Bank of India and the Central Bank of the Argentine Republic, established in 1935.

Ownership, Earnings, and Administration of Central Banks

OWNERSHIP

The respective national governments are the sole stockholders in a large group of central banks, including those of England, France, Russia, Sweden, Australia, New Zealand, China, and Canada. A trend in the direction of government ownership has been apparent in recent years. Thus the Bank of Canada Act of 1934 provided for the sale of all the stock of that bank to private shareholders, but legislation adopted in 1936 more than doubled the stock issue and authorized the Minister of Finance to purchase the additional shares so that the government might have a controlling interest, and in 1938 the retirement of the stock held by private shareholders left the government as sole owner. In 1936, the ownership of the central bank of New Zealand was transferred from private hands to the government, and in the same year, a private commercial bank of Paraguay was converted into a central bank owned entirely by the government. And the most notable event of all in this direction has been, of course, the nationalization of the Bank of England and of the Bank of France according to the terms of legislation adopted by the parliaments of the two countries late in 1945.

In a second group of central banks, ownership rests entirely in private hands, and this group includes the central banks of the United States, the Netherlands, Switzerland, India, Spain, and South Africa. For most of the central banks within this group, limitations as to who may be stockholders and as to the amount of their holdings are generally absent. The United States is exceptional in this regard since the member banks are the exclusive owners of the federal reserve banks, and since the stock held by each member bank is subject to a specific limit.

The stock of a final group of central banks is owned jointly by the respective national governments and by private interests. In at least one

instance, the Central Bank of the Argentine Republic, the ownership is shared by the state and the commercial banks only; but in most other instances, as in Mexico, Chile, and Peru, the stock available for private subscription may be purchased by individuals, by the commercial banks, and by institutions other than the commercial banks.

DISTRIBUTION OF PROFITS

The statutes of central banks vary widely in their provisions for the distribution of profits. Where the central bank is wholly owned by the national government, the entire earnings are at the disposal of the government, although provision is usually made for the allocation of a portion of the earnings to reserves and surplus. Where the central bank is privately owned, the statutes customarily provide for allocations to reserves and surplus, for the payment of limited dividends to the private shareholders, and for the division of the remaining profits between the shareholders and the government in predetermined proportions. The participation of the government in the earnings of a privately owned central bank is justified on the grounds that the government grants to the central bank certain valuable powers not available to other individuals and groups. Before its nationalization, the Bank of England was most liberal so far as the private shareholders were concerned, as the British government claimed only the profits derived from the issue of bank notes, leaving all other profits fully available for dividends to the private shareholders.

Where the central bank is jointly owned by the government and private shareholders, the government has a double claim upon earnings—a claim based upon its grant of powers to the central bank, and a claim for dividends according to the number of shares which it holds. The statutes of this class of banks, however, need not differ from those of banks which are entirely privately owned, since the government's participation in earnings as a stockholder is automatically taken care of when dividends are declared and paid.

MANAGEMENT

The ownership and management of central banks do not necessarily go hand in hand, for most governments insist upon an important participation in management, even when the stock of the central bank is wholly owned by private interests. The right of a government which owns all the stock of the central bank to choose its directors is rarely disputed, although questions arise as to who shall make the appointments, whether the prime minister, the minister of finance, the national legislature, or some other functionary, and as to what interests shall be specially represented, such as chambers of commerce, trade associations, labor unions, and specific governmental departments.

In regard to those central banks owned in part by private interests and in part by the government, the latter customarily reserves for itself the right

to choose only a minority of the directors. In many such instances, however, it also retains the authority to choose, or to approve the nomination of, the bank's chief executive officer or officers. Upon the boards of the banks of this class provision is also sometimes made for the representation of special groups such as trade and labor organizations.

The range of public policy respecting the management of central banks fully owned by private shareholders is indicated by the statutes of the Bank of Norway and those which governed the Bank of England before its recent nationalization. The shareholders of the Bank of Norway have had no voice whatsoever in the choice of directors, as they have been chosen by the national legislature; while the shareholders of the Bank of England had full authority to choose the entire board of directors, and the board, in turn, to choose the governor and deputy-governor, all without government approval of the nominations. An intermediate arrangement is typified by the laws of the Union of South Africa, where three of the nine directors of the Reserve Bank are chosen by the government, and the remaining six by the private shareholders.

Chapter 21

ORIGIN AND STRUCTURE OF THE FEDERAL RESERVE SYSTEM

Origin of the Federal Reserve System

In seeking the origin of the reform legislation which we know as the Federal Reserve Act of 1913, the economic historian usually begins with the year 1893. For it was the panic of that year and the ensuing depression which brought to bankers, businessmen, and statesmen a realization of the weaknesses of the American banking system. In a very real sense, the people of this country began to look with humility in the direction of foreign banking systems to discover the reasons for their superiority. The complacency which had marked banking thought in the United States was severely shaken.

EARLY PROPOSALS FOR REFORM

At first, the reformers devoted their attention almost exclusively to the prospects of improving the bank note issues, apparently believing that most of the monetary and banking problems would be solved if the national-bank notes could be endowed with the quality of elasticity. Thus the American Bankers Association, in its Baltimore convention of 1893, advocated the adoption of a bank note system similar to that of Canada—a system whereby all the banks which issued notes would be jointly obligated for their safety. But Canada with only a few banks and the United States with thousands were hardly comparable; and the proposal was received coldly, especially by the larger, stronger banks.

Although the presidential campaign of 1896 had for its chief issue the currency problem—Bryan's "free silver"—the victorious Republicans were unwilling to sponsor a broad program of monetary and banking reform. Realizing this fact, certain private interests, representative of bankers and businessmen, called a "currency convention" which met in Indianapolis in 1897. The convention appointed a commission to study banking problems and to prepare proposals for submission to Congress and to the President. The commission included in its recommendations the following proposals: a note issue jointly guaranteed by the issuing banks, and based upon commercial paper rather than upon government bonds; limitations upon the operations of the independent treasury system; the setting up of segregated

reserves by the Treasury for the greenbacks; and the passage of legislation to permit an extension of branch banking. As was to be expected, however, such proposals were not well received in Congress, for the leaders there continued to oppose the adoption of comprehensive legislation to effect changes in the monetary and banking system.¹ Nevertheless, the Congressional "bosses," fearing that their do-nothing policy would lose them votes, did yield to the extent of putting through the so-called Gold Standard Act of March 14, 1900.

GOLD STANDARD ACT

Despite its imposing title, the Gold Standard Act was not an important piece of reform legislation; indeed, it was a makeshift hurried through Congress for the major purpose of enabling the Republican leaders to claim, in the presidential campaign of 1900, that they had fulfilled their campaign promises of 1896. The new legislation merely declared our unit of value to be the gold dollar; it accepted the recommendation of the monetary commission of 1897 by setting up a gold redemption fund of \$150,000,000 for the greenbacks; and it provided for the refunding of the outstanding government bonds into "consols" bearing 2 per cent interest. It was thought that setting a low interest rate on government bonds would make them undesirable for any purpose other than as collateral for national-bank notes. Nothing was done with respect to branch banking; instead, a provision was included to permit the establishment of new national banks with capital stock of only \$25,000 in communities of less than 3,000 population.

Far from improving the banking structure of the country, the Gold Standard Act was in a certain sense harmful. In keeping with the provision permitting the establishment of national banking institutions with capital stock of only \$25,000, the number of small, weak banks rapidly increased. So rapid, indeed, was the expansion in the number of new national banks that the Comptroller of the Currency found the job of supervision virtually impossible, and he had to be satisfied to keep in check only the worst banking abuses. Moreover, the failure of Congress to include in the legislation of 1900 thoroughgoing measures to make the currency system elastic permitted—at a time when the volume of business activity was rapidly expanding—repeated stringency in the quantity of hand-to-hand money, a stringency which often became acute in the autumn crop-moving season.

Although widespread public discussion of monetary and banking problems continued, no further legislation was adopted for several years. The House Banking and Currency Committee devoted much intelligent study to the problems and introduced several comprehensive reform bills, but the Republican leaders continued to ignore its efforts.

¹ Cf. H. Parker Willis, *The Federal Reserve System* (New York: The Ronald Press Company, 1923), p. 12.

PANIC OF 1907 AND THE ALDRICH-VREELAND ACT

The panic of 1907 was a crowning argument in support of the program of the reformers. The nation-wide cessation of banking operations, the failure of hundreds of banks, the suspension of gold payments, and the recourse to clearing house certificates and scrip as mediums of exchange convinced the Congressional leaders that reform must be forthcoming, if for no other reason than to save their own position of power.

Even in these circumstances, Congress dallied and passed no monetary legislation until May 30, 1908, and its efforts then were not at all comprehensive in nature. The Aldrich-Vreeland Act, as the legislation is designated, provided for the emergency issue of notes by "national currency associations"—groups of ten or more national banks with combined capital stock and surplus of at least \$5,000,000—and by individual banks, when permitted by the Secretary of the Treasury. For the first time, commercial paper, the bonds of state and city governments, and certain other types of securities could be accepted by the Comptroller of the Currency as collateral for bank note issues. More important were the provisions for the appointment of a "national monetary commission" to analyze the whole problem of banking and currency reorganization.

The National Monetary Commission, which consisted of nine senators and nine representatives, was organized almost immediately and it continued its work until March, 1912, when it was dissolved. Expert students of money and banking were employed to do the detailed work of research, and twenty-three volumes of their findings were published. Under the auspices of the commission, a bill for banking reform was prepared and presented to Congress. This bill—called the "Aldrich bill"—provided for the establishment of a central bank in Washington to be named the "National Reserve Association." The proposed institution was to have branches in each of fifteen districts into which the country was to be divided. All banks of the country were to be eligible for membership in the National Reserve Association, provided that they were able to satisfy certain requirements. An important stipulation was that the national banks were to be supplanted by the association in the issue of bank notes. The association was to have other powers resembling those of central banks abroad.

At the time that the Aldrich bill was introduced, control of Congress had passed to the Democrats; and its cool reception was to be expected, since it had been sponsored, however halfheartedly, by the Republicans. But aside from the matter of party politics, the Aldrich bill was an inadequate proposal in many respects. It seems to have been designed to preserve in full measure the interests and powers of the banking fraternity, while showing small concern for the interests of the general public.² Little attention was given to some of the basic defects of the banking system which thorough-going reform proposals were intended to eliminate, such as the concentra-

² Cf. Willis, *op. cit.*, p. 84.

tion of reserves in New York City, and the cumbersome facilities for the clearing and collection of checks.

FEDERAL RESERVE ACT

When the Democrats took control of the House Banking and Currency Committee, they immediately set to work upon a substitute measure, building in some particulars upon the Aldrich bill, but introducing many independent ideas of their own. The plan of a single central bank with branches was discarded, for the Democrats—then the party of “state rights”—were fearful of the concentration of the “money power” in the East. In its place, a plan calling for the establishment of a group of relatively independent regional banks was introduced. The first draft of the new legislation, to be known when adopted as the Federal Reserve Act, was completed in October, 1912. The election of President Wilson in the following month, and the assurance that he would have adequate control of both houses of Congress, presaged the adoption of the Democratic proposals. Much work, however, remained to be done. Many alternative plans were considered, the objections of special interests had to be met, and numerous compromises were necessary. In consequence, the Federal Reserve Act did not become law until December 23, 1913, and the first Federal Reserve Board did not take office until August 10, 1914.

The Federal Reserve Act designated as the Reserve Bank Organization Committee the Secretary of the Treasury, the Secretary of Agriculture, and the Comptroller of the Currency. It was the duty of the committee to divide the country into from eight to twelve districts, in each of which one of the proposed regional banks would be opened. After holding hearings in cities throughout the country, receiving the pleas of bankers, businessmen, and others who favored one location or another, and studying the financial organization of the various regions, the committee finally decided that twelve reserve districts should be demarcated.

As the original Federal Reserve Act has been amended on numerous occasions, it would be confusing to trace all the changes which have been introduced from 1913 to the present time. In the subsequent description of the structure and functions of the Federal Reserve System, therefore, the present situation will be of chief interest. Only occasional references will be made to historical developments.

Structure of the Federal Reserve System

The functions of the Federal Reserve System are shared by five agencies or groups of agencies which we shall examine in the following order:³

³ Two other relatively unimportant agencies in the Federal Reserve System may be mentioned. The *Conference of Presidents* (originally *Governors*) of the *Federal Reserve Banks* has had an interesting history, for, early in the career of the system, it gained such power and prestige as seriously to threaten the authority of the Board of Governors; but it now occupies

- 1) The Board of Governors
- 2) The Federal Open Market Committee
- 3) The Federal Advisory Council
- 4) The federal reserve banks and their branches
- 5) Member banks of the Federal Reserve System

BOARD OF GOVERNORS

Composition of the Board.—The Board of Governors of the Federal Reserve System, as of February 1, 1936, supplanted a similar supervisory agency, known as the Federal Reserve Board, which was provided for in the original legislation of 1913. It possesses many specific powers as well as the authority to exercise general supervision over the entire system. The board is composed of seven members who are appointed by the President with the advice and consent of the Senate. The term of office is fourteen years, although the original members of the Board of Governors were appointed for "staggered" terms—one for two years, one for four years, one for six years, and so on—so that one member would leave office every two years. A member who serves a full term of fourteen years is not eligible for reappointment. The President designates one member as chairman, and one as vice-chairman; these offices are held for four-year terms, with the possibility of reappointment.

Not more than one member may be appointed from any federal reserve district, and the President, in making appointments, "shall have due regard to a fair representation" of the financial, agricultural, industrial, and commercial interests of the country as well as to its geographical divisions. During his term of office (and for two years thereafter if he leaves office before the end of the term for which he was appointed), a member of the Board of Governors is not permitted to hold "any office, position, or employment" in any member bank, nor may he be, during his term of office, a stockholder, director, or officer of any banking institution, whether or not it is a member bank. The President may remove members from office for cause. The compensation is \$15,000 per year plus an additional allowance for necessary traveling expenses.

Board as a Governmental Agency.—The charge is sometimes made that the Federal Reserve System is a private banking organization, and that Congress has delegated its power "to coin money" for the private profit of a favored group. Hence the fact must be stressed that the Board of Governors is purely a governmental agency. Neither the banking fraternity nor any other group is specially represented on the board; and it is responsible

a subordinate position, and its function, like that of the Federal Advisory Council, is to consult with and advise the Board of Governors. It holds two or more meetings each year.

The *Conference of Chairmen of the Federal Reserve Banks* is also insignificant at the present time from the viewpoint of administrative authority. The influence of the chairmen (also known as the "federal reserve agents") has been submerged as a result of the designation by the Banking Act of 1935 of the president as chief executive officer of each reserve bank. The Conference of Chairmen ordinarily meets once a year with the Board of Governors.

to no nongovernmental clique. The stockholders of the reserve banks—that is, the member banks—have no control whatsoever with respect to the decisions of the board.

To speak of the Federal Reserve System as a “private” organization seems to be a gross distortion of fact when the far-reaching powers of the Board of Governors are taken into consideration. In total, they are comprehensive in character, and in detail, they extend into almost all phases of the operations of the reserve banks and of the member banks. Some of these powers were discussed more or less comprehensively in earlier chapters, and others will be mentioned later on, particularly in the remainder of the present chapter, in the chapter following, and in Chapter 27.

Powers Relating to the Structure of the System.—With respect to the structure of the Federal Reserve System, the Board of Governors has, first of all, the power to adjust the boundaries of the twelve federal reserve districts. This power has been little used, as only a few minor adjustments of district boundaries have been made. A similar power is found in the board’s authority to classify cities and districts as central reserve cities, reserve cities, and country districts. This authority is of some importance since reserve requirements are generally varied according to these classifications, and the reclassification of a city or district requires a change in the volume of reserves held by member banks located there.⁴ The board is also authorized by law to establish facilities for the clearing and collection of checks and other instruments among the twelve reserve banks. This authority is exercised in the operation of the Interdistrict Settlement Fund. A final power in this group is that which enables the board to assess the twelve reserve banks semiannually for funds to meet its administrative expenses. Though a governmental agency, the Board of Governors receives no appropriation for salaries and other expenses from Congress; its expenses are met by the assessment levied in proportion to the capital stock and surplus accounts of the twelve banks.⁵

FEDERAL OPEN MARKET COMMITTEE

The Federal Open Market Committee is an important agency in the structure of the Federal Reserve System, since it has the power to determine when and in what volume the twelve reserve banks will engage in the purchase and sale of securities. Such purchases and sales are now recognized as the most important means at the disposal of the reserve authorities for the control of credit expansion and contraction.

Early Promotion of Coordinated Open-Market Policy.—The need of a coordinated policy with respect to the purchase and sale of securities by the twelve reserve banks was early recognized, as it was easily possible for one

⁴ Exceptions are possible here. Thus a change of reserve requirements effective October 3, 1942, made them identical for banks located in central reserve cities and in reserve cities.

⁵ In the year 1945, the assessment amounted to \$2,340,510.—*Annual Report of the Board of Governors of the Federal Reserve System, 1945, p. 50.*

reserve bank to obstruct the credit objectives of another. Thus if the Federal Reserve Bank of New York decided to restrict the volume of its loans to member banks, its action might be nullified were another reserve bank to come into the market at the same time to purchase securities. Because most of the buying and selling was and is handled in the New York market, the Federal Reserve Bank of New York was especially subject to difficulties because of uncoordinated transactions.

As early as 1922, efforts were made to unify open-market operations. In that year, the reserve banks upon their own initiative set up a committee composed of the governors (presidents) of the reserve banks of Boston, New York, Philadelphia, and Chicago to supervise open-market operations; in the following year, the governor of the Cleveland bank was added, and the committee, which was designated the Open Market Investment Committee, was taken under the wing of the Board of Governors.⁶ As the governor of the Federal Reserve Bank of New York dominated the Open Market Investment Committee, and as the reserve banks not represented on the committee were jealous of the power of the New York bank, the committee was reorganized in 1930 as the Open Market Policy Conference, composed of the governors of all the reserve banks.

Provisions of the Banking Acts of 1933 and 1935.—The foregoing open-market agencies were extralegal in character, as no provision for them was included in the Federal Reserve Act and its amendments; and, as a matter of fact, no reserve bank was compelled to cooperate with them or to follow their advice as to the purchase and sale of securities. The Banking Act of 1933, however, gave Congressional recognition to the usefulness of an open-market agency by establishing the Federal Open Market Committee composed of one representative of each of the reserve banks.

The Board of Governors objected, however, that though it was given the right to lay down rules and regulations for the guidance of the committee, it was not represented on the committee nor could it participate in policy decisions. In consequence, the Banking Act of 1935 reconstituted the committee and gave it plenary powers to dictate to the reserve banks the character and extent of their open-market operations. "No Federal Reserve bank," reads a provision of the legislation, "shall engage or decline to engage in open-market operations . . . except in accordance with the direction of and regulations adopted by the Committee."⁷

The Federal Open Market Committee is now composed of the seven members of the Board of Governors and five representatives of the reserve banks. One representative is chosen annually by the Federal Reserve Bank of New York and one by each of the following groups of reserve banks:

⁶ Although the national administrative agency of the Federal Reserve System was known as the *Federal Reserve Board* before February 1, 1936, the present title *Board of Governors* may conveniently be used in this chapter and the following ones even when reference is made to conditions and events antedating 1936.

⁷ Section 205, amending section 12A of the Federal Reserve Act.

Boston, Philadelphia, and Richmond; Cleveland and Chicago; Atlanta, Dallas, and St. Louis; and Minneapolis, Kansas City, and San Francisco. The board of directors of each reserve bank has one vote in choosing the representative of its group, and only reserve bank presidents and vice-presidents are qualified for election. Another president or vice-president is chosen by each group as alternate.

Any member of the Federal Open Market Committee may be elected as its chairman or vice-chairman; these officials are chosen by the members at the first meeting each spring to serve for the current year.

FEDERAL ADVISORY COUNCIL

The Federal Advisory Council is composed of twelve members, one chosen annually by the board of directors of each reserve bank. The members are usually distinguished bankers who are chosen because of their prominence in the respective districts. The reserve banks may vote them a stipulated compensation, with the approval of the Board of Governors, but the office is primarily an honorary one.

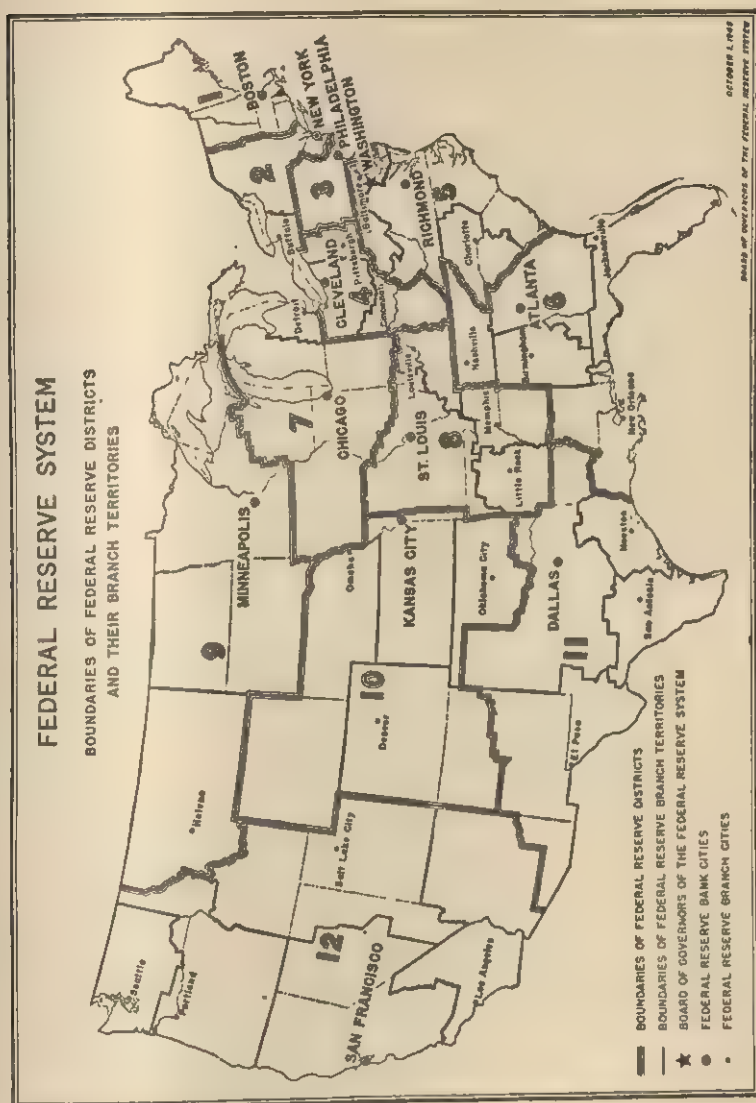
The council has no authority in directing the affairs of the Federal Reserve System. It meets at least four times a year to consult with and to advise the Board of Governors in matters relating to business conditions, the operations of the reserve banks, and questions of policy. The recommendations of the council, which the board is free to accept or reject, are usually given wide publicity in the daily newspapers and in the financial journals.

FEDERAL RESERVE BANKS AND BRANCHES

The principal operating units of the Federal Reserve System, other than the member banks, are the twelve reserve banks and their branches. A reserve bank is located in an important city in each of the twelve districts originally delimited by the Organization Committee, and some twenty other cities are directly served by branch banks established to facilitate the operations of the parent reserve banks. Each reserve bank was originally given a twenty-year charter by the federal government, but the charters were made of indefinite or perpetual duration by legislation adopted in 1927.

The boundaries of the federal reserve districts, the location of the reserve banks, and the cities in which branches are located are shown in the map on the opposite page.

Capitalization of the Reserve Banks.—The Federal Reserve Act required each reserve bank, at the time of its organization, to have a minimum subscribed capital of \$4,000,000, divided into shares of \$100 par value. The stock is subscribed by the member banks in an amount equal to 6 per cent of their own capital and surplus, although only one half of each subscription must be paid in, the balance remaining subject to call. In view of the present resources of the reserve banks, it is unlikely that the unpaid balance



Source: Board of Governors of the Federal Reserve System.

will ever be called. The original legislation authorized the sale of stock to the general public and to the federal Treasury, should such sales be necessary to supply each bank with the minimum capital required; but the subscriptions of the member banks were adequate and this expedient did not have to be employed.

The combined paid-in capital stock of the twelve reserve banks at the present time amounts to several times the total originally stipulated. Individually, the capital stock accounts of the reserve banks vary from the approximate \$4,000,000 of the Federal Reserve Bank of Minneapolis to that of the Federal Reserve Bank of New York, which approaches \$65,000,000. Because the member banks must subscribe for additional stock when they increase their own capital or surplus, and must surrender a portion of it when their capital or surplus is reduced, the outstanding capital stock of the reserve banks necessarily varies according to the total capital and surplus of all the member banks.

Distribution of Earnings.—The Federal Reserve Act authorizes the reserve banks to pay a cumulative dividend of 6 per cent upon the paid-in stock held by the member banks. Under no circumstances can the stockholding member banks enjoy a return exceeding that rate.

The regulations which govern the distribution of earnings in excess of dividend requirements have been changed several times. The original legislation of 1913 provided for the accumulation of each reserve bank's surplus account by contributions of one half of the excess earnings until it should be equal to 40 per cent of the capital stock account. The remaining one half was payable to the federal government as a franchise tax. An amendment adopted in 1919 stipulated that all excess earnings were to be turned into the surplus account until it should equal 200 per cent of the paid-in capital; thereafter, 10 per cent of excess earnings were to go to surplus, and the remainder to the government as a franchise tax. The Banking Act of 1933 altered the distribution of earnings once again. The reserve banks were required to subscribe to the stock of the Federal Deposit Insurance Corporation in an amount equal to one half of their surplus as of January 1, 1933. The surplus account of each bank was therefore divided, and the total amount of the subscription, approximately \$139,300,000, was removed from the books. At the same time, the abolition of the franchise tax permitted the reserve banks to retain all future excess earnings.

In one sense, the surplus accounts of the reserve banks belong to the federal government, for in the event of liquidation any assets which remain after the payment of liabilities and the redemption of the outstanding stock would become the property of the government.

From August, 1914, when the federal reserve banks were opened for business, until the end of 1945, their total earnings amounted to \$870,355,000, out of which \$232,225,000 was distributed as dividends, \$149,138,300 was

paid to the Treasury on account of the franchise tax, and the remainder was turned into the surplus accounts.⁸

Board of Directors.—Each reserve bank is managed by a board of nine directors who are chosen in part by the Board of Governors and in part by the member banks. Three of the board members, known as Class A directors, are designated as the representatives of the banking interests of a reserve district; and three, the Class B directors, represent the commercial, industrial, and agricultural interests of the district. The Class B directors must not be officers, directors, or employees of any other banking institutions. The Class C directors, also three in number, are appointed by the Board of Governors. They must have been residents of their respective districts for at least two years preceding their appointment. One of them, who must be a person of tested banking experience, is designated by the Board of Governors as chairman of the reserve bank's board of directors; and a second Class C director is named deputy-chairman. Class C directors, during their term of office, must have no other banking connections, either as director, officer, employee, or stockholder.

The term of office of all directors is three years. One Class A and one Class B director are elected by the member banks each year. The member banks are grouped in each district in three classes—large banks, banks of intermediate size, and small banks—and each group takes its turn every third year in choosing the Class A and Class B directors of that year. This method of election is designed to circumvent the control of the reserve banks by the larger, more powerful member banks. In general, however, little interest is shown by the member banks in the election of directors, and rarely is there a scramble for control.

Executive Officers.—The chief executive officer of a federal reserve bank is the president, who is chosen for a term of five years by the bank's board of directors, subject to the approval of the Board of Governors. One or more vice-presidents may also be selected, and the appointment of the first vice-president is also subject to the approval of the Board of Governors.

The Federal Reserve Act as adopted in 1913 was somewhat vague in its provisions respecting executive officers, although apparently the chairman of the board—who is also known as the federal reserve agent—was intended to assume the lead in handling administrative affairs. The reserve banks, nevertheless, took upon themselves the responsibility of naming their own chief executive officers—called "governors"—and in the early years of the system much rivalry prevailed between the federal reserve agents and the governors in a contest for administrative supremacy. In the course of time, however, the governors won a clear decision—a decision affirmed by the Banking Act of 1935, for it explicitly provided that the governor of each reserve bank—now renamed as "president"—should be its chief administrative officer.

⁸ *Annual Report of the Board of Governors, 1945, p. 72.*

As principal executive, therefore, each reserve bank president is now responsible for the execution of the policies formulated by the board of directors. All other officers and employees are directly subject to his authority in the performance of their duties.⁹

In accordance with the intent of the Banking Act of 1935, the Board of Governors deprived the federal reserve agents of many of the powers which they had formerly enjoyed, and put their jobs on a part-time basis. Each agent, however, still retains several statutory powers, including the right to preside and vote at board meetings, the duty of maintaining an office for the Board of Governors on the premises of the reserve bank, the duty of making reports to the Board of Governors, and the authority to supervise the note issues of the reserve bank to which he is attached.

The compensation paid to the federal reserve agent is determined by the Board of Governors but is supplied by the federal reserve bank; the compensation of the president, vice-presidents, and other officers and employees is determined by the board of directors, subject to the approval of the Board of Governors.

Branches and Agencies of the Reserve Banks.—In addition to the twelve reserve banks, twenty-four branches are now in operation. In several instances, branches were established apparently to assuage the injury felt by some major cities because they were not designated as the location of parent banks; and in other cases, their establishment was designed to provide more adequate facilities to meet the needs of member banks. Branches are especially useful in speeding the clearing and collection of checks, particularly in the districts west of the Mississippi River, which comprise vast areas.

As branches are not independent institutions, they may be thought of as divisions of their parent banks. They are not capitalized, and the scope of their operations depends upon the decisions of the parent banks, as approved by the Board of Governors. For many years, the so-called "full-power branches" provided for the member banks of their immediate vicinity an array of services almost as complete as that of the parent banks, while the "limited-power branches" were more restricted in their operations. Of late, however, all developments have been in the direction of greatly expanded branch activities, so that most of the branches—even those which were formerly described as "limited-power branches"—have come closely to resemble the reserve banks themselves. The pressure of the tremendous volume of work incident to the Second World War led many of the parent banks to allocate more and more functions to their branches, and the increased importance of the branches is not likely to be diminished in the postwar period. The objective, according to the Board of Governors, has been "to adjust the services of each branch to the increasing requirements

⁹ It is of interest to note that the personnel of the reserve banks and their branches numbered 23,522 at the close of the year 1945. *Annual Report of the Board of Governors of the Federal Reserve System*, 1945, p. 43.

of the territory it serves rather than to develop a uniform pattern of expansion for all branches.”¹⁰

Each branch has its own board of directors, which may consist of not less than three nor more than seven members. A majority of one is chosen by the board of directors of the parent bank, and the remainder by the Board of Governors. In some instances, one of the board members appointed by the parent bank is named “managing director” and, as such, he is the chief executive officer of the branch; in other instances, the chief executive officer is not a member of the branch board—he may be merely designated as “manager” or he may be included among the vice-presidents of the parent bank.

A federal reserve agency is designed for the performance of purely routine tasks; its functions, therefore, are much less comprehensive than those of a branch. Only two agencies have operated since the establishment of the Federal Reserve System—one in Cuba established in 1923 by the Federal Reserve Banks of Boston and Atlanta, and one in Savannah established by the Federal Reserve Bank of Atlanta. The agency in Cuba was maintained for only a short period of time, and that of Savannah was discontinued on January 31, 1945.

With the permission of the Board of Governors, any reserve bank may establish foreign branches and agencies and name foreign correspondents, but most of the foreign business of the system is taken care of through the Federal Reserve Bank of New York and its correspondents abroad.

Powers of the Board of Governors.—The Board of Governors of the Federal Reserve System is clothed with far-reaching authority with respect to the organization and operation of the twelve reserve banks and their branches and agencies. Some of its powers have been mentioned in the foregoing paragraphs: the appointment of three Class C directors for each bank and of a minority of the directors of each branch, the approval of the nomination of presidents and first vice-presidents, and the approval of the compensation paid by reserve banks to their officers and employees.

The reserve banks are required to submit to the Board of Governors a weekly statement of their financial condition, and the board may require them to write off their books any assets it deems worthless. Moreover, the reserve banks are examined periodically by a corps of examiners under the direction of the Board of Governors.

Were a reserve bank to indulge in operations in violation of the law, the board could suspend its operations, take possession of it, operate it during the period of suspension, reorganize it, or even liquidate it. There has been no occasion to justify the use of this drastic power. Of a similar nature is the power of the board to suspend or remove any director, officer, or employee of a reserve bank for cause.

The board possesses authority to pass upon the establishment of

¹⁰ *Annual Report*, 1942, p. 38.

branches, agencies, and correspondents by the reserve banks. It may compel a reserve bank to establish a branch or agency within its district or to close a branch or agency already in operation. If a reserve bank undertakes to establish a branch or agency in a foreign country or in an insular possession of the United States, or to appoint correspondents there, it must obtain the approval of the Board of Governors. In addition, the board has the power to supervise, regulate, and limit transactions between the reserve banks and foreign banks and bankers.

The Board of Governors supervises the issuance of federal reserve notes. It authorizes the Comptroller of the Currency to deliver new batches of notes to the reserve banks, and it establishes regulations for the safeguarding of the gold certificates, commercial paper, and government securities held by the federal reserve agent as collateral for notes outstanding.

In the exercise of a final power in this group, the board supervises the establishment and operation of the check-clearing facilities of the reserve banks, and determines the charges which may be made by member banks for collection and payment of checks presented by their customers. It also has the authority to regulate the charges which the reserve banks may make for the clearing of items other than checks, such as notes, drafts, acceptances, and bond coupons.

MEMBER BANKS

Qualifications of Member Banks.—All national banks are required to be members of the Federal Reserve System. The action of the Comptroller of the Currency in granting national charters to newly organized banks and to converted state banks immediately admits them to membership, without the need for further approval of the federal reserve authorities. The withdrawal or expulsion of national banks from the Federal Reserve System, on the other hand, requires the immediate surrender of their national charters.

Incorporated state banks, including commercial banks, mutual savings banks, trust companies, and industrial banks (such as the Morris Plan companies), may voluntarily join the Federal Reserve System if they are able to satisfy the requirements of membership. Other state-chartered financial institutions, such as savings and loan associations, sales finance companies, personal finance companies, and credit unions are not eligible for membership.

With respect to eligible state institutions, the principal qualifications for membership may be listed as follows: (1) ability to "pass" an entrance examination, (2) sufficient capital, (3) observance of reserve requirements, (4) payment at par upon checks presented by the federal reserve banks, (5) submission to periodical examination by federal reserve examiners and to requirements for periodical reports, and (6) observance of most of the federal banking laws which govern the operations of national banks.

The Board of Governors, in passing upon the application of a state

bank for membership, considers the financial history of the applicant, the nature of its business operations, the character of its service to the community in which it is located, the qualifications of its directors and officers, the strength of its capital structure, and the nature of its corporate powers. The books of the applicant are subjected to a thoroughgoing examination, and various adjustments, such as the writing off of doubtful assets, may be required as a condition for admission.

The general rule with respect to capital requirements is that a state member bank must have capital equal to what would be required were it a national bank.¹¹ An exception, however, is made in favor of state banks located in communities of less than 3,000 population. Although a national bank to be opened in such a community would be required to have capital stock of \$50,000, a state bank with capital of not less than \$25,000 may be admitted to membership if it was organized prior to June 16, 1933, or, regardless of the date of its organization, if it has its deposit accounts insured by the Federal Deposit Insurance Corporation. As mutual savings banks do not issue capital stock, the rule which applies to them requires them to have total surplus and undivided profits equal to the capital which national banks situated in the same communities would be required to have.

As information regarding the other principal qualifications of membership, as listed above, is presented elsewhere in this text, it should not be necessary to enlarge upon them at this time.

Expulsion and Withdrawal of Member Banks.—The Board of Governors is empowered to expel state member banks from the Federal Reserve System if it finds them guilty of violations of the applicable federal banking laws or of its own regulations, or if it finds that they have ceased to exercise banking functions without the appointment of a receiver or liquidating agent. On the other hand, state member banks, whatever their reasons may be, may voluntarily withdraw from the Federal Reserve System by filing with the board a six-month notice of their intention to withdraw. The board may waive the notice requirement.

Upon expulsion or withdrawal, a member bank must surrender its stock in the federal reserve bank, and at the same time, of course, it must forfeit all the rights and privileges of membership which it formerly enjoyed. The stock is redeemable at par, and, in addition, the withdrawing bank is allowed accrued dividends at the rate of .5 per cent per month if they have been earned.

Supervision of Member Banks.—In addition to passing upon the admission of state banks as members of the Federal Reserve System, the Board of Governors has the authority to subject state members to examination and to require them to submit reports of condition. The routine work of examination is normally performed, not by the employees of the board directly, but through the examination departments of the district reserve banks. But

¹¹ For capital requirements of national banks, see pp. 141, 150-151.

the board may order special examinations of member banks at any time if it suspects that funds loaned to them by the reserve banks are being used for speculative purposes.

The board has a group of powers with respect to the organization and management of member banks, particularly those chartered by the states. It approves the establishment and closing of branches of state member banks and the removal of branches from one location to another; it passes upon certain changes in capitalization; it issues to holding companies permits by which they may vote the stock of member bank subsidiaries; it may permit a director, officer, or employee of one member bank (or a private banker) to be a director, officer, or employee of not more than one additional member bank; and it may remove officers and directors of member banks for continued violations of the law or for unsafe and unsound banking practices. The board, rather than the Comptroller of the Currency, authorizes national banks to open trust departments.

With regard to the operations of member banks, the board determines within certain limits the reserves which they must maintain on deposit at the federal reserve banks of their respective districts; and it limits the interest which they may pay on savings and other time accounts.

Importance of Member Banks.—To judge the importance of the member banks as a class upon the basis of the mere number of banks in the Federal Reserve System is misleading, as Table 30 clearly indicates. As late as the end of the year 1945, less than half of the commercial banks of the country were members of the Federal Reserve System; but, at that time, the member banks held 85.2 per cent of the deposits of all commercial banks, and 86.4 per cent of their total loans and investments.¹² As the total either of deposits or of loans and investments is a reasonable criterion by which to judge the size and importance of banking institutions, the data indicate that most of the larger commercial banks of the country are members of the system, while nonmember commercial banks are generally small institutions.

Advantages of Membership.—The advantages of membership will be indicated when we discuss the operations of the federal reserve banks in the following chapter. For the moment, however, the services made available to member banks may be briefly described. Most valuable of the services are undoubtedly the clearing of checks, which is done free of cost, and the collection of notes, drafts, and other maturing obligations, also largely done free of cost. In addition, the reserve banks make up packages of currency for their members, of whatever denominations desired, and dispatch them free of mailing and handling charges; likewise, they bear the costs of shipments of hand-to-hand money from the member banks. Other facilities

¹² A slight error arises here because of the inclusion in member bank data of the deposits, loans, and investments of three mutual savings banks which are members of the Federal Reserve System.

make it possible for member banks to move funds speedily to various parts of the country, either by telegraphic transfers or by drafts.

The federal reserve banks, furthermore, undertake to make loans and advances to their member banks, usually at low rates of interest; and because of their special powers as central banks, they are able to supply abundant credit when all other sources have evaporated. Member banks may call upon the reserve banks for advice regarding their investment portfolios, and, indeed, they may ask the reserve banks to hold securities in their vaults for

TABLE 30
COMPARATIVE POSITION OF MEMBER BANKS, SELECTED YEARS, 1914-1945^a
(Dollar amounts in millions)

Year ^b	Deposits ^c of all commercial banks	Deposits ^c of member banks		Loans and investments of all commercial banks	Loans and investments of member banks	
		Amount	Per cent of total		Amount	Per cent of total
1914	\$ 14,650	\$ 6,374	43.5	\$ 16,809	\$ 8,313	49.5
1917	21,930	10,301	47.0	23,786	12,453	52.4
1920	32,534	21,915	67.4	36,376	25,559	70.3
1923	35,708	24,996	70.0	37,260	26,487	71.1
1926	42,392	30,474	71.9	43,820	31,642	72.2
1929	46,373	33,865	73.0	48,954	35,934	73.4
1932	31,621	24,803	78.4	34,764	27,469	79.0
1935	39,001	32,159	82.5	35,913	29,985	83.5
1938	43,689	36,211	82.9	38,674	32,070	82.9
1939	47,731	39,930	83.7	40,571	33,941	83.7
1940	54,363	46,007	84.6	43,940	37,126	84.5
1941	60,259	51,192	84.9	50,722	43,521	85.8
1942	77,814	67,277	86.5	67,391	59,263	87.9
1943	94,911	81,707	86.0	85,095	74,258	87.3
1944	115,827	99,033	85.5	105,530	91,569	86.8
1945	136,161	116,030	85.2	124,019	107,183	86.4

^a All figures exclude deposits and loans and investments of mutual savings banks, except that member bank statistics for 1941 and thereafter include these items for three mutuals.

^b As of June 30, 1914, June 20, 1917, June 30, 1920, and December 31 thereafter.

^c Excluding interbank deposits.

Source: Derived from *Annual Report of the Board of Governors*, 1934, pp. 140-141, and *Federal Reserve Bulletin*.

safekeeping. Finally, information and advice regarding any problem of banking, whether dealing with the interpretation of the laws or with practical bank operations, are readily supplied by the reserve banks to their members.

Objections to Membership.—The executives of those state banks not members of the Federal Reserve System offer many reasons for their refusal to join the system. One important reason why state banks do not join the system—and this reason is not, of course, widely advertised—is that many of them cannot satisfy the membership requirements. Inadequacies in this

respect are usually concerned with the capital required for membership, as there are still many hundreds of banks in operation in the United States which have only trifling capitalization. For those state banks which operate out-of-town branches, the extraordinarily large capital requirement is a strong deterrent to membership.

Many state banks do not join the Federal Reserve System because they feel that they could not operate so profitably as they do while remaining independent of it. This attitude applies particularly to those banks which insist upon levying remittance charges in meeting checks drawn upon them; for them, the emphasis of the federal reserve authorities upon par collection is quite distasteful. Member banks, moreover, must generally keep a larger part of their resources idle as reserves than do nonmember banks subject to the more liberal reserve requirements of the states. Those federal laws which regulate lending, investment, and other operations, and which are made applicable to state member banks, are in general more stringent than the state laws which regulate the same operations. In consequence, member banks have less discretion in deciding upon loan and investment policies than have nonmembers, and the former may be obliged from time to time to forgo profitable opportunities for lending and investment.

A further important reason for the failure of many state banks to join the Federal Reserve System is that they are able to obtain, either from the reserve banks themselves or from correspondent banks, services almost identical with those made available to members by the reserve banks. Under certain circumstances, nonmember banks may borrow from the reserve banks, but even if that avenue of credit is cut off, they may negotiate loans with their correspondent banks. Nonmember banks may easily avail themselves of the clearing and collection facilities of the reserve banks by keeping a balance on deposit and agreeing to remit at par. Other desirable services, such as shipments of currency, the telegraphic transfer of funds, the safe-keeping of securities, and the dissemination of information and advice, are usually supplied by correspondent banks. In many respects, therefore, nonmember banks enjoy all the benefits of the operations of the federal reserve banks while refusing to participate as members; and though they may make no direct use of the federal reserve facilities, their correspondents are likely to be members which employ the facilities fully.

In a recent study of deterrents to membership published by the Board of Governors, the following additional obstacles were listed:

. . . unwillingness to be subject to both Federal and State bank regulations, supervision, and examination; opinion that the Federal Reserve System's power to regulate is too broad; opposition to increasing governmental control; belief that the Federal Reserve examiners are too severe in their criticism; belief that the Federal Reserve System encourages branch banking, to which they are opposed; assumption that the Federal Reserve System is opposed to the dual banking system, which they wish to have continued; fear that their applications might

be turned down because of the presence of undesirable assets; belief that membership would subject them to an excessive amount of inconvenience and red tape, and put them to extra work on account of the numerous reports to be filled out, etc.¹³

¹³ R. McGruder Wingfield in *Banking Studies* (Washington: Board of Governors of the Federal Reserve System, 1941), pp. 289-290.

Chapter 22

OPERATIONS OF THE FEDERAL RESERVE BANKS

The Extension of Loans

VOLUME OF LENDING OPERATIONS

The founders of the Federal Reserve System anticipated that the extension of loans to member banks would continuously account for a substantial share of the activities of the reserve banks, but their anticipations, on the whole, have not been realized. Direct lending operations of the reserve banks were large during the period of the First World War and the three years following as well as during the stock market boom of 1928 and 1929. In the middle 1920's and in the period beginning in 1930 and extending to the present time, on the other hand, the total volume of reserve bank loans outstanding, except for brief intervals, has been relatively small. The total of "discounts and advances" reached a high daily average of approximately \$2,780,000,000 in October, 1920, fell as low as \$228,000,000 in November, 1924, rose to daily average of \$1,096,000,000 in July, 1929, and almost vanished completely by April, 1940, averaging only \$2,000,000 in that month. End-of-the-year data for the period since 1914 are presented in Table 31.

After 1933, and well into the period of the Second World War, the tremendous volume of their excess reserves made it unnecessary for most member banks to borrow from the federal reserve banks; and even when, beginning in 1941, the volume of excess reserves declined rapidly because of the great demand of the public for hand-to-hand money and because of the greatly expanded commercial bank holdings of federal securities, means other than reserve bank lending were employed to replenish depleted commercial bank reserves. These means have been the sale of treasury bills to the federal reserve banks under repurchase agreements and the purchase of securities by the reserve banks in the open market. Thus, though the loans of the reserve banks reached a level of \$912,000,000 in early June, 1945, the expansion was small in view of the tremendous over-all increase in outstanding federal reserve credit.

Although the lending machinery of the federal reserve banks has become somewhat rusty from disuse, it remains desirable to review at some

length the regulations which govern the extension of direct loans by the reserve banks. The facilities have been important in times past, and they may regain a position of importance in the future. At all events, it is well to remember that the facilities are available and may be called into use whenever the situation warrants.

TABLE 31

OUTSTANDING DISCOUNTS AND ADVANCES OF THE FEDERAL RESERVE BANKS, 1914-1945

(In millions of dollars)

End of year	Amount	End of year	Amount
1914	10	1930	251
1915	32	1931	638
1916	29	1932	235
1917	660	1933	98
1918	1,766	1934	7
1919	2,215	1935	5
1920	2,687	1936	3
1921	1,144	1937	10
1922	618	1938	4
1923	723	1939	7
1924	320	1940	3
1925	643	1941	3
1926	637	1942	6
1927	582	1943	5
1928	1,056	1944	89
1929	632	1945	249

Source: *Banking and Monetary Statistics*, pp. 330-332, and *Federal Reserve Bulletin*.

LOAN FACILITIES

When a federal reserve bank makes a loan to a member bank, the transaction may be described either as a *rediscount* or as an *advance*. A rediscount is made to a member bank by accepting from it promissory notes and other negotiable instruments which it has previously discounted for its customers. A member bank may take from its files promissory notes, drafts, and other similar instruments upon which it has made loans to its customers, indorse these, and ask the reserve bank to make a loan upon them. The member bank thus borrows not on its own promise to pay but on the promises to pay of its customers; its indorsement, however, makes it secondarily liable, and the rediscounted paper, from the point of view of the reserve bank, is "two-name paper." An advance, on the other hand, is granted upon a promissory note signed by the borrowing bank itself.

Though a member bank may have an abundant supply of customers' notes of the character which the Federal Reserve Act makes "eligible" for rediscount, and though it may have government securities and other assets to offer as collateral for reserve bank advances, it has no right to demand an

extension of credit. Its relations with the reserve bank in this regard are similar to those of a businessman and his bank. The reserve bank has full discretion in deciding whether or not to grant a loan applied for by a member bank. Each reserve bank maintains a credit department whose function is to pass upon loans requested by member banks, and the credit analysts may decide that paper offered for rediscount or as collateral, though eligible, is unsafe. Although the reserve banks are not primarily profit-seeking institutions, they resemble the commercial banks in that they desire to avoid losses when granting loans. Again, a federal reserve bank may believe that a member bank which has applied for a loan is overextending itself in its own loan and investment operations, and thus the application may be rejected though collateral of the highest quality is offered.

In earlier days, the reserve authorities devoted much energy in cautioning member banks to be conservative in their requests for loans from the reserve banks, lest the excessive borrowing of some banks deprive others of their "legitimate claim" to credit. They held that a member bank was operating upon reserve bank capital rather than upon its own if it remained continuously indebted to the reserve bank of its district; such a bank was advised to put its house in order by selling additional capital stock to the public. In the last decade and more, however, problems involving the misuse and the excessive use of federal reserve credit have been in abeyance because so few banks have had to borrow.

LOANS UPON ELIGIBLE PAPER

The definition and description of "eligible paper" have occupied an important place in the literature of the Federal Reserve System, but most of this material is now a matter only of historical interest. In our day, eligible paper is rarely used in the negotiation of federal reserve bank loans, and an early revival of its use upon a large scale is hardly to be expected. When borrowing from the federal reserve banks, member banks find the use of their own promissory notes secured with federal obligations much more convenient than the transfer to the reserve banks of a miscellaneous batch of customers' notes and bills of exchange.

In the original Federal Reserve Act, the requirements of eligibility were based upon the theory that federal reserve credit should be available only for the promotion of "productive" activity. Thus the legislation of 1913 authorized the reserve banks to discount "notes, drafts, and bills of exchange arising out of actual commercial transactions; that is, notes, drafts, and bills of exchange issued or drawn for agricultural, industrial, or commercial purposes, or the proceeds of which have been used, or are to be used, for such purposes." To avoid the possibility that federal reserve credit might be used for speculation in securities, the original legislation further provided that the definition of eligibility "shall not include notes, drafts, or bills covering merely investments or issued or drawn for the purpose of carrying

or trading in stocks, bonds, or other investment securities, except bonds and notes of the Government of the United States." The theory of eligibility, it is evident, envisaged that manufacturers, merchants, farmers, and other enterprisers would borrow from the member banks to expand their productive operations, and that the member banks, should they find themselves running short of funds, would in turn rediscount the enterprisers' paper with the federal reserve banks. Thus every extension of loans by the federal reserve banks would be matched by an increased supply of goods coming into the market—goods produced with the aid of the borrowed funds.

The objective of establishing a direct relationship between the extension of loans by the federal reserve banks and the expansion of industrial output began to break down as early as 1916, and this meant, of course, an immediate decline in the significance of eligible paper. The act of September 7, 1916, authorized the reserve banks to make direct loans to member banks for fifteen-day periods upon their own promissory notes secured by bonds and notes of the United States government. After the adoption of this legislation, the member banks did not have to be greatly concerned about the quality of their customers' notes and bills of exchange, at least so far as the prospects of rediscounting went, for they had every reason to believe that they could obtain ample advances from the reserve banks so long as they had federal obligations to offer as collateral.

The breakdown of the "productive credit theory" of federal reserve lending—and with it, the significance of eligible paper—was completed in the emergency legislation adopted in 1932 and the following years. A new theory of federal reserve credit came into being—a theory which seems to place special responsibility upon the Federal Reserve System to safeguard the solvency of the entire commercial banking structure. A provisional statement of the new theory, couched in terms of the emergency, was included in the Glass-Steagall Act of February 27, 1932; in that legislation, the Board of Governors, by the affirmative vote of not less than five of its members, was authorized to permit the reserve banks "in exceptional and exigent circumstances" to make advances to member banks on their promissory notes *secured to the satisfaction of the reserve banks*. Thus the reserve banks could now grant loans to member banks on the security of real-estate mortgages, corporation bonds, the promissory notes of stock market speculators and of borrowers for consumption purposes, and the like; and there obviously exists no immediate relationship between these kinds of collateral and the expansion of productive activities of enterprisers. The new theory, moreover, was soon relieved of its emergency trappings, for the Banking Act of 1935 simply states that the reserve banks may grant the new variety of advances, subject only to the rules and regulations which may be prescribed by the Board of Governors.

Classes of Eligible Paper.—Despite the foregoing discussion of the present unimportance of eligible paper in the lending operations of the federal

reserve banks, rules respecting eligibility are still given a prominent place in the regulations of the Board of Governors. It may be of interest, therefore, to present a list of the principal classes of eligible paper. Though of little significance in connection with present-day federal reserve bank loans, such a list indicates what are regarded by the reserve authorities—with the possible exception of 2b—as extensions of credit for “productive purposes.” The list is as follows:¹

- 1) Paper payable at sight or on demand:
 - a) Negotiable bills of exchange which originate in the domestic shipment or exportation of nonperishable, readily marketable staples, secured by bills of lading or other documents of title.
- 2) Paper within ninety days of maturity:
 - a) Negotiable notes, drafts, and bills of exchange the proceeds of which have been used or are to be used in producing, purchasing, carrying, or marketing goods, or in meeting the current operating expenses of individuals and firms engaged in commerce, industry, and agriculture.
 - b) Negotiable notes, drafts, and bills of exchange the proceeds of which have been used or are to be used for carrying or trading in direct obligations of the United States government.
 - c) Negotiable notes, drafts, and bills of exchange of factors the proceeds of which have been used or are to be used in making advances exclusively to producers of staple agricultural products in their raw state.
 - d) Bankers' acceptances originating in the domestic shipment of goods, or in their importation or exportation, secured by bills of lading or other documents conveying title.
 - e) Bankers' acceptances originating in the storage of readily marketable staples in the United States or abroad, secured by warehouse receipts or other documents conveying title.
- 3) Paper within three months of maturity:
 - a) Negotiable bills drawn for the purpose of furnishing dollar exchange.²
- 4) Paper within six months of maturity:
 - a) Bankers' acceptances originating for agricultural purposes based upon readily marketable staples and secured by documents conveying title.
- 5) Paper within nine months of maturity:
 - a) Negotiable notes, drafts, and bills of exchange the proceeds of

¹ By a ruling of September 18, 1942, the Board of Governors waived the requirement of negotiability with respect to instruments evidencing loans subject to guaranties or commitments of the War Department, the Navy Department, and the Mariñme Commission. See *Federal Reserve Bulletin*, October, 1942, p. 989.

² For an explanation of this use of negotiable bills, see below, pp. 492-493.

which have been used or are to be used for general agricultural purposes, including the breeding, raising, fattening, and marketing of livestock.

b) Negotiable notes, drafts, and bills of exchange of cooperative marketing associations the proceeds of which have been used or are to be used in making advances to members for agricultural purposes, in paying members for agricultural products delivered to the associations, and in meeting the expenses of grading, processing, packing, and marketing agricultural products handled by the associations for their members.

Rediscounts and Advances.—The Federal Reserve Act authorizes the reserve banks to rediscount eligible paper for member banks for the periods indicated in the foregoing list. The maturities given there, however, are not necessarily indicative of the tenor of the instruments themselves. Thus if a businessman were to give a member bank a promissory note due in 160 days, the note, if otherwise eligible, could be offered by the member bank for rediscount at the expiration of 70 days, that is, when it had come within 90 days of maturity. In rediscounting, member banks are required to indorse the paper.

The federal reserve banks are also permitted to grant advances to member banks on their own promissory notes secured by eligible paper. Such advances, however, are limited to 90-day periods, even though agricultural paper is offered. In those instances where member banks decide to borrow from the reserve banks on the basis of eligible paper, they are likely to find it much more convenient to obtain advances rather than to have the paper rediscounted. When an advance is arranged, eligible paper of various maturities may easily be pledged, and substitutions may be made as individual instruments come due. Moreover, only one discount calculation is involved—that on the borrowing bank's own note—rather than a separate calculation for each piece of eligible paper offered.

Although the regulations regarding eligible paper have been established primarily to govern loan transactions between the reserve banks and member banks, emergency legislation adopted in 1932 and amended in 1935 empowers the Board of Governors to permit any reserve bank, in "unusual and exigent circumstances," to rediscount eligible paper for individuals, partnerships, and corporations. The authority may be exercised by the Board of Governors only upon the affirmative vote of five of its members, and the reserve banks must assure themselves that the applicants for rediscounting privileges are unable to secure adequate loans from other banking institutions. Subject to the strict limitations indicated, therefore, incorporated nonmember banks, individuals, industrial corporations, and the like may be permitted to share with member banks in using the rediscount facilities of the reserve banks. Another means by which nonmember banks may gain

access to the reserve banks for rediscount transactions is to employ member banks as agents in offering their paper. A member bank, however, must have specific permission from the Board of Governors to serve as agent in this type of transaction.

ADVANCES UPON FEDERAL OBLIGATIONS

In recent years, virtually all the loans granted by the reserve banks to member banks have been advances upon the security of direct and guaranteed obligations of the United States government. The reserve banks are authorized by law to extend advances for periods up to ninety days upon member bank promissory notes secured by bonds, notes, certificates of indebtedness, and bills issued by the Treasury; and for periods up to fifteen days upon notes secured by obligations of the federal intermediate credit banks maturing within six months, the bonds of the Federal Farm Mortgage Corporation, and the bonds of the Home Owners' Loan Corporation. As advances of these kinds may be renewed or extended by the reserve banks, the periods mentioned do not necessarily represent the maximum time that particular extensions of credit may be outstanding.

With respect to ninety-day advances upon direct obligations of the Treasury, member banks are merely included in a general class of "individuals, partnerships, or corporations," so that the reserve banks, subject to whatever restrictions may be laid down by the Board of Governors, may grant such advances as freely, say, to nonmember banks as to member banks. Moreover, the authority to grant such advances is not limited to "unusual and exigent circumstances" nor is it subject to other special restrictions, as in the case of rediscounts of eligible paper for borrowers other than the member banks.

ADVANCES "SECURED TO THE SATISFACTION" OF THE RESERVE BANKS

Although most of the loans granted by the reserve banks are, as we have indicated, advances upon the pledge of federal obligations, probably the most important lending authority possessed by the reserve banks is their power to grant advances for periods up to four months upon member bank notes "secured to the satisfaction" of the reserve banks. Such a power obviously opens an almost unlimited scope for reserve bank lending to member banks. Like many of the broader powers now enjoyed by the Federal Reserve System, the authority to grant four-month advances was originally created (by the Glass-Steagall Act of February 27, 1932) for a limited period, and it was to be exercised only in "exceptional and exigent circumstances," but, as in other cases, the restrictions were soon removed—in this instance, by the Banking Act of 1935. One restriction, however, remains: the reserve banks must charge on four-month advances a rate of discount at least .5 point higher "than the highest discount rate in effect at such Reserve bank on the date of such note."

The restriction just mentioned indicates that member banks are expected to apply for four-month advances only in critical times. So long as they are able to offer federal securities as collateral upon loans, they are not likely to subject themselves to a higher rate of discount by offering the varieties of collateral which are acceptable for four-month advances. Four-month advances are designed, therefore, to enable the reserve banks to rescue the commercial banks in periods of emergency—a fact in keeping with the new theory of federal reserve lending, mentioned earlier, which appears to place responsibility for the solvency of the entire banking system upon the shoulders of the reserve authorities. In the collapse of the early 1930's, many banks were forced to suspend operations because they were "frozen," that is, they could not convert their assets into hand-to-hand money to meet the withdrawals of their depositors. Many were not able to call upon the reserve banks for aid because they had neither eligible paper nor federal securities to offer for rediscount or as collateral for advances; and the reserve banks, in turn, were powerless to come to the direct assistance of many banks in difficulty because the Federal Reserve Act placed too strict limitations upon their lending powers. In future crises—can we hope that they will be avoided?—it should not be necessary for member banks to depend for their solvency upon only two types of assets, eligible paper and federal securities, for they will be able to borrow—assuming that the reserve banks use their powers liberally—on the security of customers' notes drawn for any purposes whatsoever, bonds of state and municipal governments and of corporations, real-estate mortgages, and perhaps even upon the security of bank buildings and their equipment.³

INDUSTRIAL LOANS

The Loans to Industries Act of June 19, 1934, provided for a departure of the federal reserve banks from their customary role as "bankers' banks"; it authorized them to grant and to participate in granting loans for working capital purposes to established industrial and commercial enterprises for periods as long as five years. The legislation permits the reserve banks to grant working capital loans on their own initiative only in "exceptional circumstances" and only if the enterprises which apply are "unable to obtain requisite financial assistance on a reasonable basis from the usual sources," but no such restrictions apply to their participation with other financial

³ In Chapter 7, the statement was made that bank note issues "should be elastic enough to make possible their use in paying out the entire account of every depositor" in the country. However, the question as to how the individual commercial banks are to obtain a sufficient quantity of notes to meet in full the claims of their depositors was left unanswered. The situation, in a word, is this: the deposit accounts are liabilities of the individual commercial banks, while bank notes are issued exclusively by the federal reserve banks. The individual commercial banks maintain only partial reserves, and when these are exhausted, they cannot meet the remaining claims of their depositors by directly paying out their other assets. But if such other assets are freely received by the reserve banks as collateral for advances, the problem is solved, for the commercial banks are then enabled, as one might say, to convert their assets into federal reserve notes with which to pay their depositors.

institutions in extending loans. In ordinary circumstances, therefore, a prospective borrower must first apply to the bank with which he usually does business, and the bank, in turn, may call upon the district reserve bank to participate in granting the loan if it is unwilling to take full responsibility itself. Should the bank refuse to grant the loan and reject, at the same time, the opportunity to cooperate with the reserve bank in arranging the loan, the prospective borrower might apply direct to the reserve bank.

In participating with the borrower's bank in extending a working capital loan, a reserve bank may discount the borrower's paper, purchase it from the lending bank, or make a loan to the lending bank upon the security of the borrower's obligation. Such operations are permitted even though the

TABLE 32
INDUSTRIAL LOANS OF THE FEDERAL RESERVE BANKS, 1934-1945
(Dollar amounts in thousands)

End of year	Applications approved (cumulative)		Loans outstanding	Commitments outstanding	Participations outstanding
	Number	Amount			
1934	984	\$ 49,634	\$ 13,589	\$ 8,225	\$ 1,296
1935	1,993	124,493	32,493	27,649	8,778
1936	2,280	139,829	25,526	20,959	7,208
1937	2,406	150,987	20,216	12,780	7,238
1938	2,653	175,013	17,345	14,161	12,722
1939	2,781	188,222	13,683	9,220	10,981
1940	2,908	212,510	9,152	5,226	6,386
1941	3,202	279,860	10,337	14,597	19,600
1942	3,423	408,737	14,126	10,661	17,305
1943	3,471	491,342	10,532	9,270	17,930
1944	3,489	525,532	3,894	4,165	2,706
1945	3,511	544,961	1,995	1,644	1,086

Source: Federal Reserve Bulletin.

lending bank did not originally consult the reserve bank when it granted the working capital advance. But, in addition, the reserve bank may make a "commitment" to a lending bank before the loan is granted, that is, it may obligate itself in advance to participate upon specific terms. In an arrangement in which a reserve bank participates, the lending bank must either advance 20 per cent of the working capital itself or accept responsibility for 20 per cent of any losses sustained in the transaction by the reserve bank. Either alternative means, of course, that the maximum loss which the reserve bank may suffer is 80 per cent of the loan. Note that the lending bank need not be a member of the Federal Reserve System—it need not, indeed, be a commercial bank.

The Loans to Industries Act provides for the creation of an "industrial advisory committee" in each federal reserve district to advise the reserve

banks upon matters relating to the making of commitments and the granting of working capital loans. A committee is composed of three to five members appointed by the district reserve bank as approved by the Board of Governors; the members must be actively engaged in industrial pursuits in the reserve district. All applications for loans, participations, and commitments must be submitted to the industrial advisory committee for its recommendations.

Statistics of industrial loans, commitments, and participations of the reserve banks are presented in Table 32.

PURCHASE OF TREASURY BILLS

Although the purchase of government securities by the reserve banks is usually described as an "open-market operation" rather than as an extension

TABLE 33

TREASURY BILL HOLDINGS OF RESERVE BANKS UNDER REPURCHASE OPTION, 1942-1946

(In thousands of dollars)

End of month	1942	1943	1944	1945	1946
January.....	—	295,939	3,617,147	4,628,675	5,144,726
February.....	—	859,849	2,907,637	5,027,092	5,196,921
March.....	—	1,240,286	3,397,752	4,996,885	5,354,007
April.....	—	1,377,028	4,001,058	5,124,345	5,102,789
May.....	—	1,530,645	4,093,385	4,898,361	5,072,062
June.....	—	2,809,728	3,655,233	4,874,482	5,383,696
July.....	—	3,802,847	3,563,858	4,803,559	5,154,209
August.....	—	4,486,492	4,582,622	5,094,632	5,281,879
September.....	207,379	4,247,874	4,828,734	4,859,101	5,058,167
October.....	95,864	4,395,534	5,012,439	4,844,316	
November.....	47,385	4,687,876	4,583,876	4,538,612	
December.....	578,118	3,845,077	3,983,771	4,851,923	

Source: Federal Reserve Bulletin.

of loans, one variety of purchase transaction is really a means by which banking institutions may borrow at will from the reserve banks. Since August 7, 1942, the reserve banks have been willing to buy treasury bills from banking institutions upon contracts which permit the latter to repurchase them at any time before maturity.⁴ The reserve banks announce a discount or buying rate at which they are willing to take an unlimited quantity of bills, so that commercial banks which have treasury bills in their portfolios are given full assurance that they may transfer them to the reserve banks at any time to replenish their reserves. The privilege of repurchase is advantageous to those commercial banks which need federal reserve credit for only a short period of time, for they may reacquire the bills—with refunds of the discount for the period from the date of repurchase to ma-

⁴ It will be recalled that similar repurchase agreements may be negotiated with respect to bankers' acceptances. See above, p. 271.

turity—whenever they choose. The value of the privilege is indicated by the fact that the sale of bills under repurchase agreements has been in recent years the principal means by which commercial banks have “borrowed” from the reserve banks. The volume of these transactions is shown in Table 33.⁵

RATES ON REDISCOUNTS AND ADVANCES

Although reference is often made to the discount *rate* charged by the reserve banks, the expression is misleading since the reserve banks customarily post a group of different rates at which they are willing to grant

TABLE 34

DISCOUNT AND BUYING RATES OF THE FEDERAL RESERVE BANK OF NEW YORK, SEPTEMBER 30, 1946

(Per cent per annum)

Type of transaction	Rate
Advances to member banks secured by U. S. government obligations.	1
Rediscounts of eligible paper for member banks and advances to member banks secured by eligible paper. . .	1
Other secured advances to member banks.	1½
Advances to individuals, partnerships, nonmember banks, and nonbanking corporations secured by U. S. government direct obligations.	2½
Buying rate on treasury bills.	¾
Buying rates on bankers' acceptances:	
1-90 days.	1
91-120 days.	1
121-180 days.	1
Advances of working capital to industrial and commercial businesses.	2½-5
Commitments to make working capital advances to industrial and commercial businesses.	½-1¼
Discounts and purchases from financial institutions of paper arising from working capital advances:	
On portion for which institution is obligated.	(Rate charged borrower less commitment rate)
On remaining portion.	(Rate charged borrower)
Commitments to discount or purchase from financial institutions paper arising from working capital advances. . .	½-1¼

Source: *Federal Reserve Bulletin*, October, 1946, p. 1148.

rediscounts and advances. What is more, the announced rates frequently vary among the twelve banks. The rates in force at the Federal Reserve Bank of New York on a recent date, as reviewed in Table 34, illustrate the range of variations within a single reserve bank.

As one would expect, rates charged member banks upon advances secured by eligible paper and securities of the United States government are

⁵ Two other types of loans which the reserve banks may grant are not discussed in this section in view of their limited applicability. They are (1) loans to groups of five or more member banks which do not have eligible or acceptable assets to obtain other kinds of rediscounts or advances, as authorized by the Glass-Steagall Act of February 27, 1932; and (2) rediscounts of agricultural paper on behalf of the federal intermediate credit banks, as authorized by the Agricultural Credits Act of March 4, 1923.

lower than upon those secured by less acceptable assets. The type of borrower, it is apparent, is also an important factor in determining the rates to be charged. Thus individuals and nonbanking corporations are subject to comparatively high rates when they borrow on the pledge of treasury securities, while nonmember banks pay no more than member banks on such advances.

Open-Market Operations

The purchase and sale by the federal reserve banks of treasury obligations and other securities are described as "open-market operations," but such operations do not include direct transactions with the Treasury itself. Open-market operations are distinguished from the negotiation of rediscounts and advances in that the latter involves a personal creditor-debtor relationship between the reserve banks and the applicants for loans, while the former are undertaken "impersonally" in the same manner as the purchase and sale of securities by any investor. In operating in the open market, the reserve banks may deal with domestic banks, whether members or nonmembers, with foreign banks, with recognized security dealers, with business corporations, and with individuals.

The Federal Reserve Act and its amendments specifically name the types of securities which the reserve banks may buy. These may be classified as follows: (1) cable transfers, bankers' acceptances, and bills of exchange of the kinds and maturities eligible for rediscount; (2) direct obligations of the United States government and obligations fully guaranteed by it; (3) obligations of state and local governments issued in anticipation of tax receipts or other assured revenues and which come to maturity not more than six months from the date of purchase; (4) bonds of the Federal Farm Mortgage Corporation and of the Home Owners' Loan Corporation, with the same maturity stipulation; and (5) acceptances of the federal intermediate credit banks, whenever authorized by the Board of Governors.

Despite the scope of the foregoing list, the open-market operations of the reserve banks are limited almost exclusively to purchases and sales of bankers' acceptances and obligations of the United States government. With respect to bankers' acceptances, the reserve banks maintain a passive attitude, merely holding themselves ready to buy any quantity offered by banks and recognized dealers at their announced buying rate; hence they do not scout the market deliberately to increase their portfolios of acceptances. Thus it may be said that the voluntary open-market operations involve only the bills, certificates of indebtedness, notes, and bonds of the United States Treasury. Year-end security holdings of the reserve banks for the period since 1914 are detailed in Table 35.

By authority of the Second War Powers Act of March 27, 1942, the reserve banks are permitted to buy and sell obligations of the federal government in direct dealings with the Treasury. The total holdings of securities

purchased from the Treasury, however, may not exceed \$5,000,000,000 at any time.⁶ Direct transactions usually entail the sale by the Treasury to the reserve banks of special certificates of indebtedness to cover temporary deficiencies in the former's deposit balances.

TABLE 35
OPEN-MARKET SECURITIES HELD BY THE FEDERAL RESERVE BANKS,
1914-1945
(In millions of dollars)

End of year	Bills of exchange	U. S. government obligations ^a	Others
1914			1
1915	24	16	12
1916	129	55	9
1917	273	122	5
1918	287	239	
1919	574	300	
1920	260	287	
1921	145	234	
1922	272	436	
1923	355	134	
1924	387	540	2
1925	374	375	3
1926	381	315	3
1927	392	617	1
1928	489	228	10
1929	392	511	12
1930	364	729	7
1931	339	817	31
1932	33	1,855	5
1933	133	2,437	1
1934	6	2,430	
1935	5	2,431	
1936	3	2,430	
1937	1	2,564	
1938	1	2,564	
1939		2,484	
1940		2,184	
1941		2,254	
1942		6,189	
1943		11,543	
1944		18,846	
1945		24,262	

^a Including, beginning in 1935, securities guaranteed by the federal government.

Source: *Banking and Monetary Statistics*, pp. 330-332, and *Federal Reserve Bulletin*.

OPEN-MARKET PROCEDURE

In view of the reorganization of the Federal Open Market Committee as provided by the Banking Acts of 1933 and 1935, the reserve banks do not

⁶ Before 1935, direct purchases and sales between the federal reserve banks and the Treasury were permitted, but a provision of the Banking Act of August 23, 1935, stated that direct and guaranteed securities might be purchased "only in the open market."—Sec. 14(d) of the Federal Reserve Act, as amended.

individually buy and sell government securities in the open market at will. Decisions as to the time and volume of purchases and sales are made by the committee, and the operations are executed through the Federal Reserve Bank of New York, which acts as the agent of the committee in this connection. The securities bought by the order of the committee are apportioned among the twelve reserve banks according to their need of earnings to meet expenses and to pay dividends; and securities sold are removed from the portfolios of the twelve banks upon the basis of similar considerations.

The Federal Open Market Committee, it is important to mention, does not directly supervise day-to-day transactions in the open market; instead, it designates five of its members (three members of the Board of Governors and two of the representatives of the federal reserve banks) as an executive committee to which it entrusts responsibility for day-to-day operations. As a matter of fact, the full committee ordinarily meets only five or six times during the year for the purpose of defining for the executive committee the scope of permissible operations. A typical resolution of the full committee is the following:

That the executive committee be directed, until otherwise directed by the Federal Open Market Committee, to arrange for such transactions for the System open market account, either in the open market or directly with the Treasury (including purchases, sales, exchanges, replacement of maturing securities, and letting maturities run off without replacement), as may be necessary in the practical administration of the account, or for the purpose of maintaining about the present general level of prices and yields of Government securities, or for the purpose of maintaining an adequate supply of funds in the market; provided that the aggregate amount of securities held in the account at the close of this date (other than (1) bills purchased outright in the market on a discount basis at the rate of $\frac{3}{8}$ per cent per annum and bills redeemed at maturity and (2) special short-term certificates of indebtedness purchased from time to time for the temporary accommodation of the Treasury) shall not be increased by more than \$2,000,000,000.

That the executive committee be further directed, until otherwise directed by the Federal Open Market Committee, to arrange for the purchase for the System open market account direct from the Treasury of such amounts of special short-term certificates of indebtedness as may be necessary from time to time for the temporary accommodation of the Treasury; provided that the amount of such certificates held in the account at any one time shall not exceed \$1,500,000,000.⁷

PURPOSES OF OPEN-MARKET OPERATIONS

When the Federal Open Market Committee undertakes to buy and sell federal securities in the open market, it may have one of three goals in view. In the first place, it may order purchases of such obligations to lend support to their market prices; or, if the market prices are "firm," it may order sales

⁷ Adopted at the committee's meeting of October 17, 1945.—*Annual Report of the Board of Governors*, 1945, p. 92.

in anticipation of later purchases when support becomes necessary. Second, purchases may be ordered for the purpose of expanding the primary reserves of the commercial banks, and, conversely, sales may be undertaken in order to contract primary reserves. The implications of these objectives are far reaching in importance, but a further discussion may well be deferred to a later chapter where the problems of "monetary policy" are examined at length.⁸ A third objective which may account for the purchase of securities is to provide interest earnings for the reserve banks. In recent years, in view of the small volume of outstanding advances to member banks, the reserve banks' holdings of government securities have been the only important source of income out of which ordinary operating expenses and dividend requirements have been met. Income derived from other sources, such as from fiscal agency services, is usually only sufficient to meet the expenses involved.

Fiscal Agency Functions

SERVICES FOR THE UNITED STATES TREASURY

One of the special tasks assigned to a central banking institution is that of serving as the fiscal agent of the national government. In the United States, the federal reserve banks individually and collectively are the chief fiscal agencies of the federal government. Services of government fiscal agents include the holding of its deposit balance, the cashing of checks drawn against it, the transfer of funds throughout the country and abroad on behalf of the government, the collection of payments due it as in the clearing of checks received from the general public for taxes and other obligations, assistance in the sale of bills, certificates of indebtedness, notes, and bonds, the exchange of such obligations, the payment of interest and principal upon them, and the purchase of securities for the government's special funds. All these kinds of services are performed by the federal reserve banks for the Treasury.

Cash Transactions.—The mere handling of the Treasury's cash balance is a huge task. The balance is increased by the deposit of gold certificates, silver certificates, new subsidiary coins, and other types of hand-to-hand money; by the transfer of treasury deposits from member and nonmember banks to the reserve banks; and by the deposit at the reserve banks of checks drawn upon commercial banks received from taxpayers, buyers of government securities, and others. In this regard, it is of interest to mention that though the Treasury uses thousands of commercial banks throughout the country as depositories, it does not usually draw checks against them; instead, when it is ready to use funds deposited with the commercial banks, it orders their transfer to the federal reserve banks.

Against the treasury balance, many millions of checks are drawn each year for the payment of government employees and the personnel of the

⁸ See below, pp. 438-444.

armed forces, the purchase of supplies and equipment, the payment of bonuses to farmers, and the meeting of interest, pension, and other charges. During the year 1945, for example, the reserve banks cashed a total of 510,608,000 checks drawn by the Treasury.⁹ Virtually all the services of the federal reserve banks as depositaries of the Treasury are provided free of charge, for the Treasury undertakes to compensate the reserve banks only for a few services of a special character.

Assistance in Government Financing.—Another important aspect of the services of the federal reserve banks as fiscal agents of the federal government is their assistance in the issue, exchange, and retirement of its bills, certificates of indebtedness, notes, and bonds. As the federal debt grows to huge aggregates, the work of this character is constantly enlarged. When the Treasury decides to issue new securities, the reserve banks prepare descriptive announcements which are sent to all banking institutions as well as to other interested parties. They receive the subscriptions of investors, make allotments, and deliver the securities to the buyers.

The exchange of government securities is also taken care of by the reserve banks. The sale of unregistered obligations, of course, requires no negotiations with the Treasury or with the reserve banks since they pass by delivery; but the transfer of title to registered bonds must be entered upon the books. Again, investors may desire to change the denominations of their bonds, as when a person wants to exchange a \$5,000 bond for five \$1,000 denominations. Sometimes subscribers to government securities are permitted to pay for them by merely turning in other federal issues which they hold, and such operations entail additional clerical work for the reserve banks.

Finally, the federal reserve banks take care of the retirement of federal obligations at maturity, as well as the current payment of interest upon them. In the year 1945, for example, the reserve banks received for payment 18,292,000 government bond coupons on direct and guaranteed obligations totaling \$2,348,172,000, and issued, redeemed, and exchanged government direct obligations totaling \$299,624,101,000.¹⁰

Operations of the Exchange Stabilization Fund.—The Federal Reserve Bank of New York is employed by the Treasury in the operations of the Exchange Stabilization Fund. The fund was established in 1934, it will be recalled, to enable the Treasury to control the value of the dollar in international exchange. Operations of the fund carried out by the Reserve Bank of New York, therefore, have chiefly involved the purchase and sale of gold and foreign currencies.

OTHER FISCAL AGENCY FUNCTIONS

Departments of the federal government other than the Treasury, as well as special agencies and government corporations, may call upon the federal

⁹ *Annual Report of the Board of Governors*, 1945, p. 69.

¹⁰ *Ibid.*

reserve banks for various kinds of services. In recent years, the reserve banks have acted variously as fiscal agents, custodians, and depositaries for such agencies as the Reconstruction Finance Corporation, the Commodity Credit Corporation, the Defense Plant Corporation, the Defense Supplies Corporation, the federal land banks, the federal intermediate credit banks, the federal home loan banks, the Home Owners' Loan Corporation, the Federal Farm Mortgage Corporation, the United States Housing Authority, and the Federal Deposit Insurance Corporation. Next to the Treasury, the Reconstruction Finance Corporation and the Commodity Credit Corporation have been responsible for most of the fiscal agency work of the federal reserve banks. All such agencies reimburse the reserve banks for the expenses entailed in the performance of the various services.

CORRESPONDENT RELATIONS WITH FOREIGN CENTRAL BANKS

The federal reserve banks, and particularly that of New York, cooperate with central banks of many foreign countries in the establishment of correspondent relations. The operations of the reserve banks in behalf of foreign central banks and foreign governments do not, however, represent all the international relations of this type, as some foreign governments use other American banks as depositaries and fiscal agents.

The work of the federal reserve banks as correspondents of foreign central banks includes the holding of deposits, the safekeeping of gold shipped to the United States or obtained at the Treasury and placed under "earmark," the investment of foreign deposit balances in American short- and long-term securities (at the request of the foreign central banks), the payment of interest and principal on foreign securities owned by American investors, and in certain circumstances the extension of loans.

Special Wartime Functions of the Federal Reserve Banks

GUARANTEED LOANS

Immediately preceding and during the war period, many new duties were placed upon the Board of Governors and the federal reserve banks. Probably the most publicized of their added duties were those concerned with the negotiation and guaranty of loans on behalf of the War Department, the Navy Department, and the Maritime Commission. As was mentioned in an earlier chapter,¹¹ the President, by an executive order of March 26, 1942, authorized the three military agencies to use their appropriations to make loans to contractors and others for the production of war materials, as well as to guarantee loans made by the reserve banks, the Reconstruction Finance Corporation, and other financial institutions.

Following the issuance of the executive order, the reserve banks were named as fiscal agents to assist the War and Navy Departments and the

¹¹ See above, pp. 258-259.

Maritime Commission in exercising their newly granted authority. The Board of Governors, after consultation with representatives of the three agencies, issued a series of rules (Regulation V) for the guidance of the reserve banks in undertaking the new work. It was anticipated that the military agencies would not be called upon to make many direct loans, but rather that they would merely, through the agency of the reserve banks, guarantee loans (so-called "V-loans") granted to producers of war materials by commercial banks and other privately owned financial institutions. As a general rule, the Board of Governors and the officers of the reserve banks expected producers of war materials to obtain credit through the regular banking channels without guaranties. When, however, the lending banks, in consideration of their customary credit standards, would have refused to grant credit for essential war purposes, they were expected to apply to the reserve banks for guaranties. In return for guaranties, the lending banks had to pay to the reserve banks stipulated proportions of the interest earned upon the guaranteed loans, and such income was used by the reserve banks to meet expenses and losses incurred in the transactions. Expenses and losses in excess of income were reimbursable by the military agencies.

Later, in September, 1943, the regulations were broadened to permit the inclusion of "termination clauses" in loan contracts covered by guaranties. By means of "termination clauses," producers of war materials were relieved of the fear of having their working capital tied up in such materials upon the cancellation of contracts by the military agencies, for they were assured of the availability of guaranties for loans ("VT-loans") to release working capital pending the settlement of war contracts. Still later, according to the terms of the Contract Settlement Act of July 1, 1944, guaranties were provided for simple termination loans ("T-loans"), which were also designed to release working capital for reconversion and peacetime production pending the settlement of war contracts.

Although the President's executive order and the subsequent Congressional legislation authorized the reserve banks to participate in granting loans for war production and for the release of working capital upon contract cancellation—loans which might also be guaranteed by the War and Navy Departments and the Maritime Commission—the capacity of the reserve banks to grant loans was not thereby expanded. In a word, the provisions of the Loans to Industries Act of 1934, already discussed, continued to govern their advances of working capital to business concerns.

OTHER SPECIAL OPERATIONS

Several other extraordinary tasks which were undertaken by the federal reserve banks during the war period may be mentioned.

- 1) To assist in the marshaling of industries for war production, each reserve bank and branch appointed a "defense contract officer" to advise businessmen and financial institutions regarding procedures in obtaining

contracts from government procurement agencies, executing them, and making arrangements for financing. The staffs of the discount and credit departments of the reserve banks and branches were placed at the disposal of the defense contract officers.¹²

2) The reserve banks shared heavily in the work which arose from the "freezing" of the American assets of certain foreign countries and their nationals in accordance with the President's executive order of April 10, 1940, and subsequent orders.¹³ The reserve banks served as fiscal agents of the Treasury in receiving and passing upon applications for licenses to permit the use of blocked or frozen assets.

3) When the War Damage Corporation launched its program of providing insurance against property damage caused by enemy action or by American forces in resisting enemy action, it called upon the reserve banks to act as its agents. As such, the reserve banks undertook much detailed work in receiving reports and in keeping records respecting the insurance written by private companies.

4) The Federal Reserve Bank of San Francisco was called upon to assist Japanese, German, and Italian aliens and persons of Japanese ancestry, who were removed from the military areas of the Pacific Coast, in protecting their property and in arranging for its disposition upon satisfactory terms. For the performance of these duties, the bank opened an Evacuee Property Department with principal offices in San Francisco, Seattle, Portland, and Los Angeles, and with some fifty suboffices in other localities.¹⁴

Other Operations of the Federal Reserve Banks

CURRENCY OPERATIONS

The principal currency operation of the federal reserve banks—the issuance of federal reserve notes—has already been adequately discussed¹⁵ and needs no further examination here. But the reserve banks are also the means by which other kinds of hand-to-hand money get into circulation; in short, they are the reservoirs from which all kinds of hand-to-hand money flow to the commercial banks and to the general public. When the Treasury issues silver certificates upon the security of silver purchased from domestic and foreign producers, they are deposited with the reserve banks in exchange for credits in the Treasury's deposit accounts. When additional quantities of subsidiary and minor coins are needed for general circulation, they are delivered by the mints to the reserve banks, also in exchange for credit entries in the Treasury's deposit accounts.

The hand-to-hand money issued by the Treasury, as well as the federal reserve notes created by the reserve banks themselves, gets into circulation

¹² *Federal Reserve Bulletin*, May, 1941, p. 404.

¹³ See below, p. 526.

¹⁴ *Federal Reserve Bulletin*, April, 1942, pp. 321–322.

¹⁵ See Chapter 7.

as a result of calls for shipments of currency by member and nonmember banks. Shipments of currency in the denominations requested are made free of charge to member banks; and shipments for nonmember banks may be sent to their correspondents or direct to them, but the expenses of mailing and insurance must be paid by the nonmember banks or by their correspondents.

Unfit currency may be sent to the reserve banks by member and nonmember banks alike, and the reserve banks bear the expenses of shipment. Unfit paper money is canceled and sent to the Treasury for destruction; and worn and mutilated coins are sent to the mints for melting and recoinage.

CLEARINGS AND COLLECTIONS

The work performed by the reserve banks in clearing checks drawn upon bank demand deposits was described at some length in Chapter 8, but some additional services of a similar character may be mentioned here. Not only do the reserve banks supply facilities for intradistrict and interdistrict clearing of checks, but they also perform an excellent service in collecting time items arriving at maturity. Promissory notes, commercial drafts, bankers' acceptances, bond coupons, and securities are all handled by the reserve banks.

A member bank or a nonmember clearing bank may send such items to the reserve bank of its district, and the latter proceeds to obtain payment by presenting them direct to the person, firm, or corporation which is obligated, by sending them to other reserve banks or branches, or by collecting them through other banking institutions. Ordinarily no charge is made for this service other than telephone and telegraph expenses and the costs of registry if the items are sent by insured mail. Commercial banks which are requested by the reserve banks to assist in collecting items of the types mentioned may levy for their services reasonable charges which are passed on to the banks for which collection is made.

TELEGRAPHIC TRANSFERS AND EXCHANGE DRAFTS

The federal reserve banks make available to member banks facilities for the transfer of funds to all parts of the country. The private wires of the system may be employed by member banks without cost in transferring sums of one thousand dollars or more (in round amounts). Should a member bank in South Bend, Indiana, for example, desire to make an immediate payment in New York City for some securities purchased, it could request the Federal Reserve Bank of Chicago to wire the necessary funds to the Federal Reserve Bank of New York, where they would be placed to the credit of the New York correspondent of the South Bend bank. The deposit balance of the South Bend bank at the Reserve Bank of Chicago would be reduced by the amount involved.

The reserve banks also stand ready to arrange telegraphic transfers on

behalf of their member banks for other purposes. Should a South Bend firm, for example, want to make an immediate payment to a San Francisco firm, a South Bend bank could arrange for the payment through the Federal Reserve Banks of Chicago and San Francisco. For operations of this variety, the reserve banks use the commercial telegraph facilities and assess the costs of the telegrams against the member banks.

If speed is not essential in the transfer of funds to another part of the country, a member bank may arrange to draw an exchange draft upon its deposit account with the reserve bank. Such a draft is acceptable at any reserve bank or branch. The drawing bank reports to its reserve bank details regarding the draft, and its deposit account is immediately charged for the amount involved. Telegraphic transfers and exchange drafts are cleared through the Interdistrict Settlement Fund.

MISCELLANEOUS ACTIVITIES

In addition to the variety of operations already mentioned in this chapter, the reserve banks undertake other kinds of tasks, some of which have been discussed elsewhere in this text. Among these are the following: (1) the examination of state-chartered banks which apply for admission to the Federal Reserve System, and the periodical examination of state member banks; (2) the receipt and analysis of reports of condition filed by state member banks; (3) the consideration of applications of national banks to open trust departments; (4) the dissemination and interpretation of the regulations of the Board of Governors; (5) the gathering and publication of statistics respecting developments in banking and business; and (6) the holding of securities for safekeeping for out-of-town member banks.

Federal Reserve Bank Statements

The federal reserve authorities publish a weekly statement of condition for each reserve bank as well as a statement for the twelve banks combined; these are invaluable sources of information with regard to banking conditions and trends. Table 36 reproduces a recent combined statement and separate data for the Federal Reserve Bank of New York. The latter are included to show the dominant position of this bank, which, it will be noticed, accounted for approximately 27 per cent of the combined resources of the reserve banks at the date for which the figures were published.

To grasp the information "buried" in the federal reserve statements, one should understand the nature of the various accounts listed as well as the more important interrelations existing among them. For that reason, it is desirable to devote some attention to analysis, although many of the accounts should be recognized in view of the exposition presented in the foregoing divisions of this chapter and in preceding chapters.

TABLE 36

STATEMENT OF CONDITION OF THE FEDERAL RESERVE BANKS, JUNE 6, 1946

(In thousands of dollars)

	<i>Twelve federal reserve banks combined</i>	<i>Federal Reserve Bank of New York</i>
<i>Assets</i>		
Gold certificates	17,344,055	5,183,838
Redemption fund for federal reserve notes	747,267	118,844
Total gold certificate reserves	18,091,322	5,302,682
Other cash	264,762	67,371
Discounts and advances	252,190	71,981
Industrial loans	1,268	—
Acceptances purchased	11,193	11,193
United States government securities:		
Bills	13,859,924	3,424,400
Certificates	6,268,870	1,576,210
Notes	1,748,200	439,557
Bonds	902,942	227,030
Total United States government securities	22,779,936	5,667,197
Due from foreign banks	85	28
Federal reserve notes of other banks	109,674	13,018
Uncollected items	2,188,403	476,706
Bank premises	33,003	8,583
Other assets	55,546	12,749
Total assets	43,787,382	11,631,508
<i>Liabilities</i>		
Federal reserve notes	24,104,137	5,407,950
Deposits:		
Member bank—reserve account	15,798,813	5,011,150
United States Treasurer—general account	394,158	81,025
Foreign	618,505	228,455
Other	444,614	339,579
Total deposits	17,256,090	5,660,209
Deferred availability items	1,783,201	359,350
Other liabilities including accrued dividends	13,719	4,027
Total liabilities	43,157,147	11,431,536
<i>Capital Accounts</i>		
Capital paid in	182,104	64,371
Surplus (section 7)	358,355	116,860
Surplus (section 13b)	27,428	7,205
Other capital accounts	62,348	11,536
Total capital accounts	630,235	199,972
Total liabilities and capital accounts	43,787,382	11,631,508

ASSET ACCOUNTS

The "total gold certificate reserves" of the federal reserve banks are of profound significance, since, as we have seen,¹⁶ they largely represent the foundation upon which the entire bank credit structure of the country is erected. By legal requirement, some of the reserves must be maintained in proportion to the outstanding notes and the deposit liabilities of the reserve banks; but the remainder may be used as a basis for the creation of new bank credit throughout the commercial banking system.

"Other cash" represents the holdings of the federal reserve banks of hand-to-hand money issued by the Treasury, including silver certificates, greenbacks, and subsidiary coins. It is similar, therefore, to the "cash in vault" of a commercial bank; as such it is immediately available, together with federal reserve notes, for shipment in response to calls for additional hand-to-hand money received from member banks. The item, it is important to mention, does not include any unissued or reacquired federal reserve notes; because such notes are liabilities of the respective reserve banks when outstanding, they could hardly be classified as "cash" while in the possession of the issuing banks.

"Discounts and advances" and "United States government securities" comprise the principal assets upon which the reserve banks depend for their earnings; but their greatest significance lies in the fact that they are the means by which the resources of the federal reserve banks are made available to the commercial banks. An increase in the volume of these assets, other things being equal, is accompanied by an expansion of the primary reserves of member and nonmember banks of an identical amount.

"Federal reserve notes of other banks" should be offset against "federal reserve notes," which appears among the liabilities. The true liability of the reserve banks, as a group, on account of outstanding notes is the difference between these two items. Thus when the Federal Reserve Bank of New York returns the \$13,018,000 of notes shown in Table 36 to the other eleven banks, the latter will deduct them from the total of the notes shown among the liabilities.

In a similar fashion, "uncollected items" must be considered in relation to "deferred availability items," which appears as a liability. When the reserve banks receive checks and other cash items from clearing banks for collection, they place the total amount in these two accounts as an asset and a liability respectively. The balances in the account for "deferred availability items" are transferred to the deposit accounts of the clearing banks as the time designated in the reserve bank "availability schedules" elapses.¹⁷ Hence the difference between the two accounts represents items for which the clearing banks have already been credited, although such items have not yet been collected by the reserve banks.

¹⁶ See above, pp. 237-239.

¹⁷ See above, p. 125.

The entry for "other assets" includes chiefly premiums paid upon securities purchased at prices in excess of par, interest earned but not yet received, claims against various government agencies for expenses incurred in their behalf, unused supplies, and real estate other than the banking premises.

LIABILITY ACCOUNTS

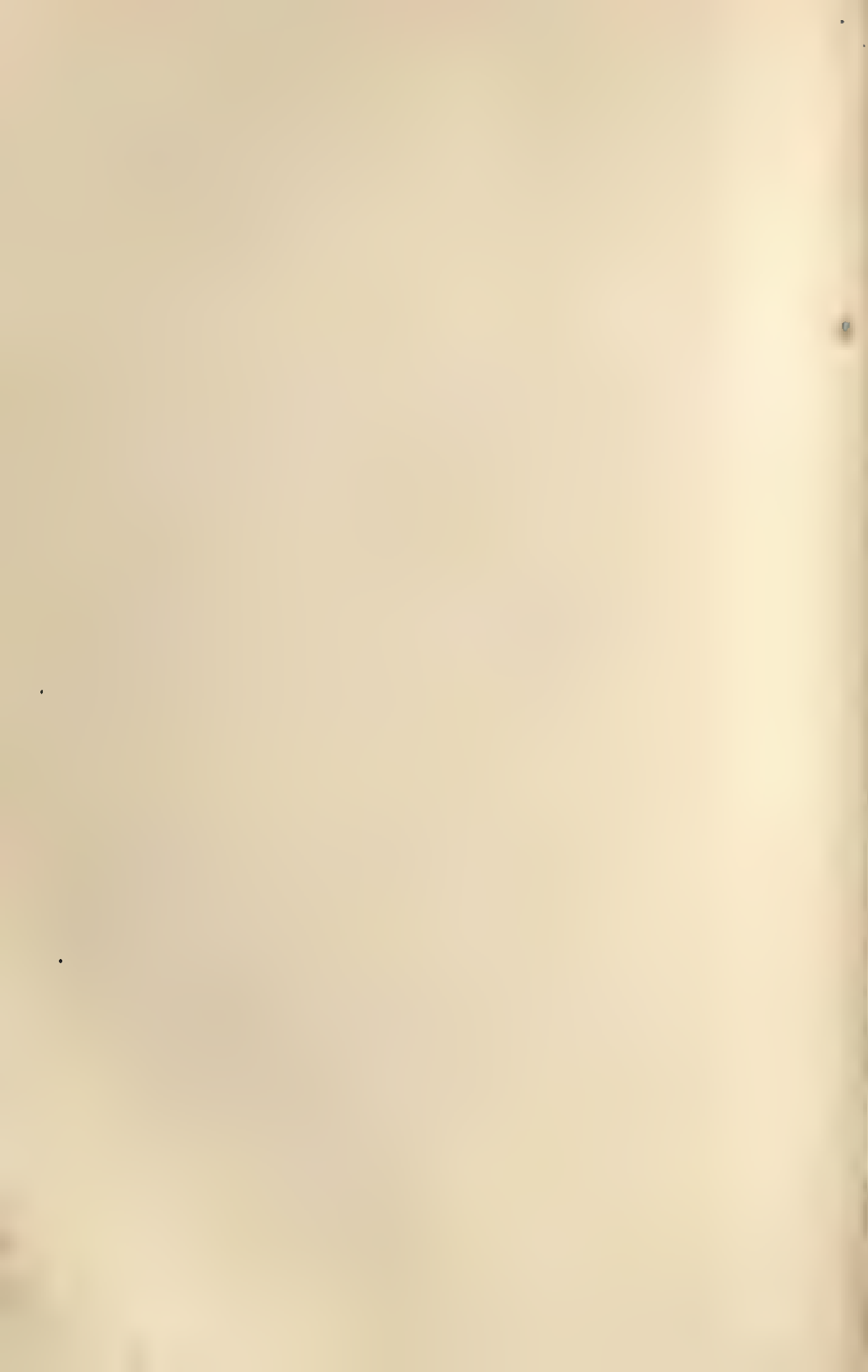
Further analysis of "federal reserve notes" and "deferred availability items" is unnecessary. The importance of the deposit accounts of member banks must be stressed because they represent the principal element among the primary reserves of the commercial banks of the United States. The deposit balance of the Treasurer of the United States is highly significant, since its increase is generally reflected in a decrease in the reserve balances of the commercial banks, and its decrease has a converse relationship. The account for "foreign deposits" consists principally of the balances held by foreign governments and central banks with the reserve banks for correspondent and other purposes. Finally, the account for "other deposits" includes the clearing accounts of nonmember banks, the accounts of government corporations, outstanding certified and cashiers' checks issued by the reserve banks, unpaid exchange drafts, and other miscellaneous deposits.

Besides accrued dividends, the total given for "other liabilities" is made up of expenses which have been incurred but not yet paid, discount deducted although not yet earned, and certain "suspense" accounts and miscellaneous liabilities.

CAPITAL ACCOUNTS

The "capital paid in" represents the par value of all the stock of the federal reserve banks owned by the member banks. "Surplus (section 7)" consists of accumulated net earnings of the reserve banks remaining after the payment of dividends, the payment of franchise taxes to the federal government, and the subscription to the stock of the Federal Deposit Insurance Corporation; while "surplus (section 13b)" represents capital contributed to the federal reserve banks by the Secretary of the Treasury to enable the former to grant working capital loans to industrial concerns. The contributions of the Secretary of the Treasury have been made from the "profits" derived through the devaluation of the dollar in 1934.

Current earnings not yet transferred to surplus (section 7) and reserves for contingencies—which are designed to take care of extraordinary losses—are combined as "other capital accounts."



Part V

THE VALUE OF MONEY

Measurement of the Value of Money

The Transactions and Cash-Balance Theories

The Income Theory

Chapter 23

MEASUREMENT OF THE VALUE OF MONEY

Variations in the Value of Money

PURCHASING POWER OF MONEY

Of all the economic problems which arise in the study of money and banking, those which are concerned with the value of money are by far the most important. The value of money is its purchasing power—its capacity to command goods in exchange for itself. We say that the value of money is low if prices in general are high, and that it is high if prices in general are low. Thus the value of money may be indicated by a “general price level”—an abstract concept representing an average of the prices of all commodities, services, and property rights currently being bought and sold. The relationship between the value of money and the general price level is inverse and proportional; for example, a rise of 25 per cent in the general price level is equivalent to a decline of 20 per cent in the value or purchasing power of money.

Almost all aspects of monetary and banking theory and practice are in one way or another concerned with the purchasing power of money. The selection of a monetary standard—whether it should be a gold-coin, a gold-exchange, a bimetallic, or a paper-fiat standard—must be based upon a consideration as to what the standard money will buy when in use. Whether money should be issued by governments or by banking institutions—this question likewise involves a consideration of its purchasing power. The principles of monetary policy or credit control are intimately connected with various aspects of the value of money. All the proposals made in recent years for the management of the monetary system by governmental authorities or by officials of central banks directly involve the value of money.

DISPARITY OF PRICE VARIATIONS

If all prices changed in the same direction at the same time and in the same degree, the problems presented by fluctuations in the value of money would be minor ones. Even then, certain maladjustments would arise, for the burden of outstanding indebtedness would grow lighter with a rise in

TABLE 37
WHOLESALE COMMODITY PRICE INDEXES, SELECTED YEARS, 1914-1945
(1926 = 100)

Year	All commodities	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products	Building materials	Chemicals and allied products	House furnishing goods	Miscellaneous
1914	68.1	71.2	64.7	70.9	54.6	56.6	80.2	52.7	81.4	56.8	89.9
1917	117.5	129.0	104.5	123.8	98.7	105.4	150.6	88.2	165.0	74.2	122.1
1920	154.4	150.7	137.4	171.3	164.8	163.7	149.4	150.1	164.7	141.8	167.5
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929	95.3	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6
1932	64.8	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4
1935	80.0	78.8	83.7	89.6	70.9	73.5	86.4	85.3	79.0	80.6	68.3
1938	78.6	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3
1939	77.1	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8
1940	78.6	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3
1941	87.3	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.4	94.3	82.0
1942	98.8	105.9	99.6	117.7	96.9	78.5	103.8	110.2	95.5	102.4	89.7
1943	103.1	122.6	106.6	117.5	97.4	80.8	103.8	111.4	94.9	102.7	92.2
1944	104.0	123.3	104.9	116.7	98.4	83.0	103.8	115.5	95.2	104.3	93.6
1945	105.8	128.2	106.2	118.1	100.1	84.0	104.7	117.8	95.2	104.5	94.7

Source: United States Bureau of Labor Statistics.

the general price level, and heavier with a fall. As a matter of fact, prices behave very erratically, and their fluctuations cause difficulty and confusion in the relations between industries and between different groups of people in the economic community.

Price Relationships among Industries.—The tendency of price variations to cause maladjustments in the relationship between industries can best be understood by an examination of indexes of prices prepared for a series of years, such as the wholesale price index numbers of the United States Bureau of Labor Statistics, a selection of which is presented in Table 37. When one remembers that all the different commodity series shown in the table had the same basic starting point in 1926, the extraordinary range of the fluctuations and their lack of uniformity are vividly revealed.

Since the close of the period of the First World War, for example, farm prices in the United States have generally fallen short of "parity" with the prices of most kinds of manufactured goods, as Table 38 indicates. Hence

TABLE 38
RATIO OF PRICES RECEIVED TO PRICES PAID^a BY FARMERS, 1910-1945

Year	Ratio	Year	Ratio	Year	Ratio
1910	106	1922	80	1934	70
1911	94	1923	86	1935	84
1912	99	1924	86	1936	90
1913	100	1925	92	1937	92
1914	99	1926	87	1938	77
1915	93	1927	86	1939	77
1916	94	1928	90	1940	80
1917	118	1929	89	1941	94
1918	118	1930	80	1942	106
1919	109	1931	63	1943	119
1920	104	1932	55	1944	115
1921	75	1933	60	1945	116

^a Including interest and taxes.

Source: United States Department of Agriculture, Bureau of Agricultural Economics.

the farmers of the country, as an industrial group, claim that they have occupied a position with respect to purchasing power inferior to that which they held in the 1909-1914 period—which explains, at least partially, the continual agitation for farm relief in the past two decades, as well as the special concessions on behalf of farmers incorporated in the price control legislation of the period of the Second World War.

Price Relationships among Population Groups.—Price fluctuations affect different groups in the population unequally. When prices in general are rising, debtors, businessmen, and corporation stockholders normally enjoy an improvement in their position, while creditors, wage earners and salaried workers, landlords, and others who receive fixed incomes are adversely

affected. In periods during which prices in general are falling, the situation is reversed.

If, for example, a person borrows \$10,000 at a certain time and repays the loan when prices in general have risen 50 per cent, he gains a patent advantage. The \$10,000 which he returns to his creditor will purchase only two thirds as much as it would have at the time the loan was negotiated. The creditor is adversely affected, for he should receive \$15,000 to have the same purchasing power as that which he originally loaned.

Statistical studies show that as the general price level rises and falls, there is a "lag" in the movement of wages and salaries. In other words, although wages and salaries adjust themselves to changes in the price level, a period of time must elapse before the adjustment is completed. During the period of adjustment, the working class gains an increase in purchasing power—an increase in "real wages," in the terminology of the economist—if the price level is falling, and loses purchasing power if the price level is rising.

People who receive pensions, retirement allowances, and annuities, all of which are usually fixed in amount, are even more at the mercy of changing prices. When the general price level has risen, their fixed income buys fewer commodities and services—much as if the price level had remained the same and their dollar income had been reduced. Landlords who lease their properties for long periods at fixed rentals are similarly situated.

Owners of private businesses and corporation stockholders generally benefit from rising prices and suffer a diminution of purchasing power in times of falling prices. The chief reason for this is that overhead expenses, such as taxes, depreciation, and interest payments, do not vary in proportion to changes in the general price level, if they vary at all. A rising price level which brings higher selling prices rapidly expands the unit margin of profit when costs remain low; but the margin of profit on each unit produced is quickly dissipated when prices fall and costs remain swollen.

Identity of Interests.—It appears, therefore, that economic class is arrayed against economic class because of their diverse interests in the changing price level. But the advantages gained by a group may soon be lost if price changes continue too long or too drastically in a given direction. Though creditors gain from falling prices when they receive from their debtors greater purchasing power than that originally loaned, the advantage obtains only so long as the debtors remain able to pay. If the decline in prices is so severe that the debtors are forced into bankruptcy, the creditors, as one might say, are dragged down with them. Likewise, wage earners and salaried workers may benefit temporarily from falling prices; but if the decline is too rapid or too great, their employers may be forced to close their plants because of inability to carry on operations profitably.

As for rising prices, creditors, instead of suffering ill effects, may in many instances be benefited. If rising prices improve the financial position

of weak debtors, the creditors have all the more assurance that the obligations due them will be paid at maturity; and this assurance may more than offset the diminution of purchasing power. Again, a period of rising prices normally brings an increase in business activity and the employment of more workers; hence the working class as a whole stands to benefit, although individual workers, previously employed, may be able to obtain fewer commodities and services in exchange for their wages.

The Problem of Measurement

The study of the theory of the value of money involves two basic problems. In the first place, it is necessary to find a means by which variations in the purchasing power of money may be measured; and, second, it is necessary to explain why the variations occur. The remainder of the present chapter will be devoted to the problem of measurement, and the two chapters following will be devoted to an explanation of the reasons why the value of money changes.

WHAT IS A DOLLAR WORTH?

To discover a means of expressing the value of money at a particular time is not an easy task. Reference to the general theory of value of the economist is of little immediate help. It is true that we speak of the value of money in the same way that we speak of the value of economic goods in general; for both, value is expressed in terms of purchasing power—the capacity of money or of goods to command goods in exchange. But when we refer to commodities and services generally—to wheat, cotton, tin, copper, and the services of doctors and lawyers—we state their value in terms of money. Money, as we know, is the *standard of value*.

But the value of money itself cannot be expressed in terms of money. It is absurd to say that “a dollar is worth a dollar,” and it conveys little information to say that “a dollar is worth 13.714 grains of fine gold.” The first of these expressions reveals nothing as to the purchasing power of the dollar, and the second states its purchasing power only in terms of gold—a purchasing power which has been arbitrarily established by the government. Everybody knows that the value of money changes—that, for example, it was relatively low in 1946 and relatively high in 1939; yet in both these years, a dollar was worth a dollar, or it was worth 13.714 grains of fine gold, however one may desire to state it.

VALUE OF MONEY IN TERMS OF A SINGLE COMMODITY

One way to measure the value of money would be to express it in terms of a particular commodity which, unlike gold, is bought and sold in a free market. We may find that at one time wheat is worth \$1.50 per bushel; at another, \$1.00 per bushel, and at another, \$.50 per bushel. Just as we thus

express the changing value of wheat in terms of money, we could express the changing value of money in terms of wheat. It would be possible to say that at one time a dollar is worth two thirds of a bushel of wheat; at another, a bushel; and at another, two bushels. A statement of this kind would at least suggest that the value of money was changing; but it would not be a satisfactory measure of the changes, because wheat is subject to peculiar supply and demand forces, and variations in its value may result from a bumper crop, a drouth, heavy foreign purchases, or other special circumstances.

It is logical to measure the value of wheat in terms of money, because almost all the wheat grown is exchanged for money. But it is not logical to measure the value of money exclusively in terms of wheat, because money is exchanged for innumerable commodities, services, and property rights other than wheat. And the forces which affect the supply of and demand for wheat do not necessarily affect the supply of and demand for all other goods.

In view of the foregoing considerations, we face the inescapable conclusion that little is gained by stating the value of money in terms of a single commodity; but the conclusion suggests a second method of approach. If it is impossible reasonably to express the value of money in terms of wheat or of any other single good, can it not be done by reference to a group of goods taken collectively? This question requires an affirmative answer, because it is only by comparing the composite prices of groups of goods at different times that we are able to measure changes in the value of money.

VALUE OF MONEY IN TERMS OF MANY TYPES OF GOODS

Variations in the value of money could best be measured by using an average of the prices of all commodities, services, and property rights exchanged for money at a designated place at different times. If the average at one time were greater than at previous times, the conclusion would be that the value of money had declined in inverse proportion in the interim.

But it is quite impossible to compile a list of all commodities, services, and property rights—those of negligible significance along with those of great importance—and to price such a list accurately. Accordingly, the economist does the next best thing. He selects a group of perhaps two or three hundred types of goods whose prices will be obtainable periodically without too much difficulty. The goods selected are believed to be representative of the thousands of varieties which he is unable to include in his compilation. The goods are listed, and from time to time the prevailing market prices are entered on the lists. The prices of all the goods are totaled and averaged, and the average obtained at one time is compared with those calculated previously and subsequently. Such averages are known as *index numbers of prices*.

Price index numbers, it must be emphasized, are not absolute measures of the value of money. To say that at a particular time the index number is

"125" or "83" is unintelligible unless it is possible to make a comparison with other numbers calculated for other times. Thus index numbers of prices are relative measures of the value of money—in a word, they make possible the comparison of the purchasing power of money at one time with its purchasing power at other times.

The Construction of Price Index Numbers

Numerous methods of calculating index numbers of prices have been devised, and there has been much disputation as to which method gives the most accurate results. We must, however, leave the technical problems to the statisticians, since our purpose is merely to understand the nature of index numbers, the basic technique by which they are calculated, and their use in estimating changes in the value of money.

SIMPLE AGGREGATES OF ACTUAL PRICES

It is desirable to consider several of the simpler methods of calculation, using for our illustrations the prices of several hypothetical types of goods prevailing, let us say, during a period of three years. The simplest type of index number is constructed by merely totaling the prices in each of the years. The method is illustrated as follows:

Types of goods	Prices per unit		
	First year	Second year	Third year
A	\$.20	\$.25	\$.28
B	1.50	1.40	1.60
C	8.20	8.50	8.95
D	.08	.08	.07
E	.60	.62	.63
F	.40	.80	1.10
G	.12	.11	.10
Totals.	\$11.10	\$11.76	\$12.73

The prices of seven types of goods are quite inadequate as a fair "sample" for the calculation of acceptable index numbers, but if the seven annual prices were truly representative of the thousands of prices actually prevailing, we could say with conviction that the value of money was lower in the second and third years than in the first. As the totals are not easily handled in making comparisons from year to year, they are usually reduced to percentages with the base year designated as 100 per cent, or, more commonly, merely as "100." It is important to emphasize that the base year is selected merely as a matter of convenience, and that it does not represent a "normal" period.

If the first year of the illustration is made the base year, the index numbers for the three years are 100, 106, and 115 respectively. In other words, we could say (still assuming the seven prices to be truly representative of all current prices) that the price level rose 6 per cent in the second year and 15 per cent in the third year. Since the value of money is the reciprocal of the general price level, index numbers of the value of money would be, respectively, 100, 94, and 87. In relation to the first year, therefore, the value of money declined 6 per cent in the second year, and 13 per cent in the third.

The index numbers just described are known as *simple aggregates of actual prices*. Because they have certain basic defects, they are not commonly used. For one thing, one's logical sense is offended because each index number is an aggregate of the prices of miscellaneous units of goods—a total of the prices of pounds, bushels, tons, quarts, gallons, and possibly other units. Thus, in the illustration, the change of 25 per cent in the price of A-goods in the second year is made negligible by the very large unit prices of B-goods and C-goods—the decline of 7 per cent in the price of B-goods doubly offsets the rise of 25 per cent in the price of A-goods. Even when the prices of all the goods are stated in terms of the same unit of measurement, the defects of this type of index number are not eliminated, for those goods which have great value in small bulk tend to exert a disproportionate influence upon the price total.

WEIGHTED AGGREGATES OF ACTUAL PRICES

To overcome the weakness of the simple aggregate, carefully selected *weights* are introduced. A weight is a multiplier applied to the price of a good in accordance with the relative importance of that good. In the application of weights to actual prices, the quantities of goods marketed in a given period or in a number of periods are most frequently used. The resulting index numbers, called *weighted aggregates of actual prices*, escape the criticism that prices of miscellaneous units are added together, for they are based, not upon pounds, tons, gallons, and other units of measurement, but upon the total sums of money which would be spent for a given supply of goods in different periods.

The method of computing weighted aggregates is demonstrated in the table at the top of the opposite page in which we have used the same prices as in the first illustration and have introduced assumed quantities.

If the first year is again designated as the base year, the percentages or index numbers are, respectively, 100, 108, and 116; and the index numbers of the value of money, calculated as reciprocals, are 100, 93, and 86. Weighted aggregates of actual prices are accepted as reasonably adequate for all ordinary purposes, and they represent the type of index numbers most commonly employed in the United States.

Types of goods	Quantities marketed	Quantities \times prices		
		First year	Second year	Third year
A	10,000	\$ 2,000	\$ 2,500	\$ 2,800
B	3,000	4,500	4,200	4,800
C	1,000	8,200	8,500	8,950
D	20,000	1,600	1,600	1,400
E	5,000	3,000	3,100	3,150
F	5,000	2,000	4,000	5,500
G	50,000	6,000	5,500	5,000
Totals.....		\$27,300	\$29,400	\$31,600

WEIGHTED AVERAGES OF RELATIVE PRICES

An alternative method of index number calculation is to reduce all the original prices to percentages, thereby removing immediately the objection that miscellaneous units are combined. The calculation of "relatives," as the percentages are called, puts each price on an equal footing with every other price. A change in the price of one type of goods from eighty to ninety cents, therefore, is no more significant than a change in the price of another from eight to nine cents. A simple average of relative prices may be calculated, but such an average is generally unsatisfactory because the more important goods are not marked out for special emphasis. For that reason, the relative prices are usually weighted according to reasonable estimates of their importance.

The following table illustrates the calculation of *weighted averages of relative prices*, with the actual prices used in the first two illustrations reduced to relatives, and with certain assumed weights assigned:

Types of goods	Unweighted relatives			Weights	Relatives \times weights		
	First year	Second year	Third year		First year	Second year	Third year
A	100	125	140	3	300	375	420
B	100	93	107	2	200	186	214
C	100	104	109	4	400	416	436
D	100	100	88	3	300	300	264
E	100	103	105	2	200	206	210
F	100	200	275	2	200	400	550
G	100	92	83	4	400	368	332
Totals.....				20	2,000	2,251	2,426

Dividing the totals of the weighted relatives by the number of weights used, namely, 20, we have as index numbers, 100, 113, and 121, respectively.

Some American Index Numbers of Prices

Although we have said that the general price level—measuring inversely the value of money—is the average of the prices of all commodities, services, and property rights currently being exchanged, the fact is that the price index numbers most commonly employed are averages of wholesale prices only. General price indexes are certainly to be preferred in the analysis of certain types of economic problems, but they are much more difficult to compute accurately than are wholesale indexes. Opinions differ widely as to what varieties of individual prices should be included in the calculation of general price indexes. Many economists believe that general price indexes must include retail prices as well as wholesale prices, together with property rentals, wage rates, and transportation charges. Some hold that general price indexes must also include real-estate values and the prices paid for stocks and bonds; while others contend that payments for property of these kinds must be excluded because they are payments for future income.

Wholesale price indexes are most popular because of the relative ease with which wholesale prices may be compiled. Retail prices, on the other hand, are more difficult to ferret out, and they tend to vary rather markedly from place to place. Furthermore, as methods of selling at retail tend to change frequently, retail price comparisons over long periods of time are likely to be faulty. For these reasons, changes in wholesale price indexes are often cited as measuring the fluctuating purchasing power of money. But if wholesale price indexes are to be so employed, they must be handled with extreme caution. Although they generally indicate the direction in which the purchasing power of money is moving, they do not measure accurately the extent of the movements.

WHOLESALE PRICE INDEXES

The most popular index of wholesale prices in the United States is that of the federal Bureau of Labor Statistics, which has been calculated on a monthly and annual basis as far back as 1890, and on a weekly basis since January, 1932. The BLS index is a weighted aggregate of the actual prices of 889 commodities with 1926 as the base year. The quantity of each commodity marketed in 1929 and 1931—for farm products, 1929, 1930, and 1931—is used to weight its price. Separate index numbers are calculated for finished products, semimanufactured goods, and raw materials, and for ten groups of commodities as shown in Table 37; these are further broken down into fifty subgroups.

Many other agencies in the United States calculate index numbers of wholesale prices, either for general use or for certain limited purposes. Professor Irving Fisher, who has done notable work in index number research, publishes a weekly index of wholesale prices based upon approximately 200 commodities. Several organizations publish index numbers based upon the

wholesale prices of only a few commodities supposed to be especially "sensitive" in indicating price changes; among them are the weekly index of the Guaranty Trust Company of New York based upon the prices of 23 commodities, the daily "28 Basic Commodity Index" of the federal Bureau of Labor Statistics published since August 28, 1939, Dun and Bradstreet's index of prices of 30 commodities reported on a daily basis, and the daily 40-commodity index of Standard and Poor's Corporation.

SNYDER'S GENERAL PRICE INDEX

One noteworthy attempt has been made to construct an adequate index of the general level of prices. This index, a weighted arithmetic average of other index numbers, was prepared by Dr. Carl Snyder, the distinguished economist of the Federal Reserve Bank of New York. It is available for the period from 1913 to 1939, but its preparation was discontinued after the latter year.

Index numbers of wholesale prices, of retail prices, of wages, and of other price schedules were weighted according to an estimate of their relative importance. For this purpose, the following series, with respective weights as shown in parentheses, were used: industrial commodity prices at wholesale (10); farm prices at the farm (10); retail food prices (10); rents (5); other cost-of-living items (10); transportation costs (5); realty values (10); security prices (10); equipment and machinery prices (10); hardware prices (3); automobile prices (2); and composite wages (15).

Snyder's index is undoubtedly the best available measure of the value of money in the period for which it was calculated—although, as was mentioned earlier, there are misgivings as to whether such items as realty values and security prices should be included in a general index, since they may be regarded as the discounted value of expected future income.

INDEXES OF RETAIL PRICES

As the end of all economic activity is consumption, the purchasing power of money in the hands of the consumer is sometimes regarded as the most accurate measure of the value of money. In support of this view, the claim is made that wholesale prices, wage rates, transportation costs, and other types of prices are all reflected in the ultimate prices which consumers must pay. Those theorists who oppose this viewpoint, however, argue that retail prices move more sluggishly than wholesale prices, and that a change in the purchasing power of money may be under way for some time before it is reflected in retail prices.

Although retail prices are more difficult to compile than wholesale prices, several well-designed indexes of the former are available. The Bureau of Labor Statistics prepares monthly indexes of consumers' prices prevailing in the principal cities of the United States. Average prices from 1935 to 1939 are used as the base, and the component series include approximately 200

items in the following categories: food, clothing, rent, fuel and light, house-furnishing goods, and miscellaneous goods. The bureau also publishes monthly indexes of retail food costs in 51 large cities. The National Industrial Conference Board, a nonprofit private organization, publishes a monthly index of the cost of living for the nation as a whole, using 1923 as the base year.

OTHER PRICE INDEX NUMBERS

Many other types of price index numbers are constructed, and some of them are highly significant. Indexes of stock prices are prepared by the firms which specialize in security analysis, such as Moody's Investors Service and Standard and Poor's Corporation, and by many financial journals. Separate indexes may be found for preferred and common stocks, as well as for the stocks of particular kinds of issuers, as railroads, public utilities, and industrials. Bond price indexes are also common; they are separately prepared for government issues, both federal and municipal, and for various classes of private issuers. In addition, bonds are often classified according to their investment qualities, and separate indexes are published for each rating. Sometimes the bond price indexes are expressed in terms of average "yields," but as yield is determined by price in relation to the nominal interest rates carried by the bonds, they are properly included as price indexes.

Other examples of indexes of special price series are those of building costs, such as the general index of construction costs of the *Engineering News-Record*, and the indexes of the cost of residential construction of the Federal Home Loan Bank Administration; and of wage rates, such as that of the Federal Reserve Bank of New York.

As tools of analysis, special price indexes are often more useful than a general price index would be. The latter, being a composite of many different types of prices, is likely to conceal many significant facts as to price movements which special indexes disclose. If, for example, indexes of stock prices are rising rapidly, while indexes of wholesale and retail commodity prices are stationary, important conclusions respecting the use of money for speculation may be adduced.

A Final Word on Index Numbers

A perfect index of prices has never been constructed, nor is one likely to be. An index regarded as "perfect" by one group of economists might well be criticized by another group as quite inadequate. Aside from the differences of opinion as to what elements an index should comprise, inaccuracies and errors arise in the compilation of prices and in the allocation of weights. Much depends upon the reasonableness of the statisticians' judgment.

A realization of the shortcomings of price indexes, however, does not destroy their usefulness. Although a tool of analysis may be imperfect, there is no justification for casting it aside. If we grant that the study of the value of money is the most important topic in the field of money and banking, we must be willing to use every analytical device available, however imperfect, so long as it contributes to our knowledge. It would be absurd, for example, to discuss the possibilities of "stabilizing the price level," if we were unable to discover—at least approximately—what the price level is from time to time. Until better methods of measuring the value of money are discovered, therefore, we shall find it necessary to employ those indexes which are currently published—always using them with caution and making allowances for their inadequacies.

Chapter 24

THE TRANSACTIONS AND CASH-BALANCE THEORIES

Having studied the techniques by which economists measure the purchasing power of money, we are prepared to attack the second basic problem of the value of money, that is, we must attempt to explain why the value of money is subject to fluctuations. Index numbers of prices show clearly that the value of money changes more or less continuously, but they do not indicate why the variations take place.

In recent decades, the attention of students of monetary phenomena has been concentrated upon three major theories of the value of money; the transactions theory, the cash-balance theory, and the income theory. Because the three theories are designed to explain the same processes, they are necessarily closely related, and, in fact, they complement each other in many respects; nevertheless, there are substantial differences in the methods employed by the advocates of each type of theory in their "approach" to the problem of the value of money.

The transactions theory has long held a position of high favor in the United States, where it has been popularized under the leadership of Professors Irving Fisher and Edwin W. Kemmerer, and only recently has its dominant status been threatened by the attention which has been devoted to the income theory. The cash-balance theory has had its greatest vogue in Great Britain, where it has been explained and defended by the economists of the "Cambridge School" under the leadership of Professors Alfred Marshall and A. C. Pigou. Although the income theory has come into prominence only since the close of the First World War, it has captured the interest—if not always the devotion—of so many economists that it has largely succeeded in sidetracking the further analysis and development of the transactions and cash-balance theories. A host of economists of outstanding ability have contributed to the development of the income theory, including Albert Aftalion in France, Knut Wicksell in Sweden, Joseph Schumpeter in Austria and the United States, Lord Keynes, D. H. Robertson, and R. G. Hawtrey in Great Britain, and Alvin H. Hansen in the United States.

In the present chapter, the transactions and cash-balance theories will

be presented, and the following chapter will be devoted to an exposition of the income theory.

The Transactions Theory

IMMEDIATE DETERMINANTS OF THE VALUE OF MONEY

According to the conclusions of the transactions theorists, the value of money, like the value of any economic good, is determined by the forces of supply and demand. Although they recognize that the value of an economic good is established by the forces of supply and demand in a given market at a given moment of time, the transactions theorists prefer to think of the determination of the value of money as a process which takes place in a period of time. In analyzing the supply factor, therefore, it is necessary to discover not only the average quantity of money available throughout the period of time, but also to determine the average velocity or turnover of that quantity. The demand for money is stated as the sale of commodities, services, and property rights in exchange for money. In the view of the transactions theorists, then, there are three immediate determinants of the value of money: the average quantity of money available, its average velocity, and the demand for money.

Before proceeding with the analysis of the three immediate determinants, we must emphasize that they are not regarded as independent forces, but that, on the contrary, they are the resultants of numerous determinants of their own. One must recognize, in other words, that a host of legal, economic, and physical factors—such as the selection of the monetary standard, the issue of money by a central bank, the creation of deposit money by the commercial banks, the facilities of transportation and communication, the labor skill of the people, and the natural resources of the nation—are ulterior or remote determinants of the value of money. Simply to say, then, that the value of money is determined by the supply of and demand for money would be to make the tenets of the transactions theory absurdly naïve. All legal, economic, and physical phenomena have a bearing upon the value of money, but, in the view of the transactions theorists, all these phenomena exercise their influence by producing certain effects upon the three immediate determinants.

QUANTITY OF MONEY

Composition.—In the analysis of the quantity of money, the question arises as to the types of money which must be included and excluded. For one thing, in accordance with the conclusions reached in previous chapters, we must include bank demand deposits as well as hand-to-hand money. But we immediately recognize that many duplications exist in the monetary system, and that certain types of money are not used in transactions involving the purchase and sale of commodities, services, and property rights.

There may exist gold reserves and gold certificates, silver reserves and silver certificates, bank notes and reserves for bank notes, and bank demand deposits and reserves for bank demand deposits.

To gain an accurate estimate of the available quantity of money, therefore, it is necessary to eliminate all duplications. In the first place, the metallic money held as reserves or "backing" for other kinds of money must first be eliminated. Thus, in the United States, the Treasury's reserves of gold and silver would not be included in the available quantity of money. Second, all types of nonmetallic hand-to-hand money held for reserve purposes must be eliminated. For the United States, this means the elimination of the gold certificates held by the federal reserve banks, because such money is held as reserves in connection with the note and deposit liabilities of the reserve banks; and the elimination of the hand-to-hand money held as "vault cash" by the commercial banks, because it is held as a reserve for the deposit liabilities. Finally, demand deposits maintained by banking institutions with each other, including deposits with the central bank and with correspondent banks, must generally be eliminated, since they are held for reserve purposes or for the settlement of interbank obligations. To the extent, however, that interbank deposits are employed in such transactions as the purchase of securities and the payment of expenses, they must be included in the available quantity of money.

In summary, the quantity of money may be described as the total of all types which are available for immediate spending for commodities, services, and property rights.

Determinants of the Quantity of Money.—The average quantity of money available in a country in a given period of time is dependent upon numerous factors, some of which are legal in character, some economic, and some physical.

The legal factors are of outstanding importance. Included among them are the selection of the monetary standard, the provisions for the purchase and sale of the precious metals, the regulations which govern the importation and exportation of the precious metals and their use in the arts, the policy of the central government in respect to the issue of its own types of money, the presence or absence of a central bank, the authority of the central bank to issue notes, the reserve requirements established for central-bank note issues, the duty of the commercial banks to keep reserves in their own vaults or with the central bank, the obligation of the central bank to keep reserves against commercial bank deposit balances, the capacity of the central bank to grant loans to the commercial banks and to buy and sell securities in the open market, and the capacity of the commercial banks to create demand deposits by granting loans and purchasing securities.

To the extent that they are not specifically regulated by law, some of the factors mentioned in the preceding paragraph may be classified as economic rather than as legal determinants of the quantity of money. In any

event, all phases of central and commercial banking must be included among the economic factors. Another economic factor is found in the decisions that people make with respect to the quantity of hand-to-hand money they want to withdraw from banks and the quantity of bank demand deposits they want to maintain.

The physical determinants of the quantity of money principally involve the production and accumulation of the precious metals, particularly, in modern times, gold. Important in this regard are the accumulation of gold and silver stocks from prior periods, the discovery of deposits of the precious metals, and the techniques of production in the mining industry.

VELOCITY OF MONEY

Because the transactions theorists think of the determination of the value of money as a process which takes place in a period of time, they find it necessary to introduce the concept of the "velocity" or "turnover" of money in order to estimate the total supply. It is then possible to say that the supply of hand-to-hand money of a given year is the average quantity existing throughout the year multiplied by the average number of times each unit changes hands during the year; and that the supply of bank demand deposits is the average quantity available times their average turnover.

Our sense of logic is not violated by the introduction of the concept of transactions velocity or turnover,¹ for money is peculiar in the sense that it is not consumed. All goods are produced to be consumed, and regardless of the number of times that they change hands, they are, so to say, marching toward the consumer who will exhaust their utilities. But money may be used over and over, and after use in innumerable transactions, it still retains the full capacity to fulfill its functions. A dollar bill which changes hands twenty times in the course of a month is clearly doing the work of a single \$20 bill which changes hands only once. And a bank demand deposit of \$500 which is constantly replenished as a total of \$10,000 of checks is drawn against it in a year is obviously as useful as a deposit of \$10,000 which is drawn upon in full only once.

Determinants of the Velocity of Money.—The speed with which money passes from person to person in any period of time is determined by numerous factors. It may be said, in general, that any condition which lengthens the period of time between the receipt of money and its disposal reduces the transactions velocity. Important, therefore, as determinants of velocity are the following: the decisions of the people as to the proportion of their current income which they spend for consumption and the proportion which they save; the relative importance of buying for cash and of buying upon charge accounts; the frequency with which charge accounts are settled; the

¹ The "transactions velocity" of money, which is discussed here, must be distinguished from the "income velocity" of money which is analyzed in the following chapter.

habits of businessmen in keeping large or small amounts of money on hand for till purposes; the frequency with which industrial pay rolls are met; the rapidity with which money may be transported; the facilities available for borrowing to meet obligations; and anticipations of the people respecting future income, prices, and expenditures.

DEMAND FOR MONEY AND ITS DETERMINANTS

The demand for money, according to the transactions theory, is the total of all commodities, services, and property rights exchanged for money in the course of a given period of time. When a farmer or a manufacturer sells his product in the market, he is demanding money. When a person accepts a job, he is offering his services in exchange for money. Likewise, in selling land and buildings, stocks and bonds, and other property rights, people demand money. In this sense, the demand for money is spoken of as the *volume of trade* of a given period of time.

Any factor which affects the production of commodities, services, and property rights, and their exchange is obviously a determinant of the volume of trade. The number of determinants is, therefore, almost without limit—including as it does almost every feature of the economic system. Some of the most important factors, however, may be specifically listed as follows:² the natural resources of a country and their regional distribution; the population, and its distribution according to age groups, color, race, intelligence, education, and general skills; the managerial or entrepreneurial ability of industrial leaders; the capital equipment of the nation, and its distribution among specific industries; the organization of industry, whether large scale or small scale; the techniques and processes of production which have been developed; the division of labor regionally and within industries; the facilities for the distribution of goods, including wholesale houses, retail outlets, mail-order establishments, and the transportation and communication systems; the development and use of intangible titles to property and debt instruments, such as notes, bonds, mortgages, and stocks; the organization of the markets for intangibles; and the direct consumption of goods by producers, as in the case of farmers, as well as the direct exchange of goods for goods.

Velocity of Trade.—When using the concept of velocity of money, one must be careful also to allow for the velocity of trade. While all economic goods are ultimately consumed, they may nevertheless pass through many hands before reaching the consumer. The wheat grown by the farmer may be first sold to a commission merchant and then to a flour manufacturer; the flour, in turn, may be sold to a wholesale merchant and then to a baker, and the baker's bread may pass through the hands of a retail grocer before reaching the consumer. All these transactions are separate demands for

² Cf. Irving Fisher, *The Purchasing Power of Money* (New York: The Macmillan Company, 1926), pp. 74-75.

money and, as such, they must be separately included in the total volume of trade.³

EQUATION OF EXCHANGE

Introduction of Symbols.—Now that we have defined the three immediate determinants of the value of money and have shown that they are themselves determined by a host of other factors, we are prepared to bring them together and disclose their relationship with the value of money. For this step, it is convenient to employ symbols. Let M stand for the average quantity of money available throughout the year, and V for the average velocity of money in the same period of time. Then MV is a year's supply of money. The volume of trade for the year may be expressed by the symbol T . T , the volume of trade, cannot be interpreted as the summation of ounces, pounds, tons, pints, gallons, man-hours, ton-miles, and other measures of numerous types of goods. Such a summation would have little meaning. Rather, T is an index number of quantities, and the unit of measurement employed in including each type of goods is a *dollar's worth* of that type in a base year. Thus if 1,000,000 loaves of bread were sold in the base year at 10 cents per loaf, 100,000 units of bread would be included in T for that year; and if in another year, 1,200,000 loaves were sold at 11 cents per loaf, 120,000 units of bread, without regard to the new price, would be included in T .

Equipped with symbolic expressions for the supply of money, on the one hand, and the demand for money, on the other—and both in terms of a year—we may next introduce the symbol P to represent the general price level, or the average price paid for all commodities, services, and property rights included in the volume of trade. The symbol P is an index number of prices; it is the average price paid for cotton, wheat, iron ore, petroleum, lumber, and other commodities; for the services of skilled and unskilled workers, of doctors, lawyers, and other professional people; and for land, buildings, machinery, stocks, bonds, and other property rights. P is, of course, the reciprocal of the value of money.

Transactions Equation.—The relationship between the general price level, the quantity of money, the velocity of money, and the demand for money may be expressed as follows:

$$PT = MV$$

This expression, known as an equation of exchange,⁴ is, like all equations, a truism—as when we say that three plus four equals seven. What the

³ The same result is obtained if each exchange is thought of as involving a different type of goods, in the sense that the goods are transformed by the addition of time, place, or form utility.

⁴ So familiar is this form of the equation that it scarcely seems necessary to say that it was originated and popularized by Professor Irving Fisher. See his *The Purchasing Power of Money*, p. 24. An alternative form which distinguishes between the quantity of hand-to-hand money (M) and its velocity (V), on the one hand, and the quantity of bank demand deposits (M') and their velocity (V'), on the other, is written as follows: $PT = MV + M'V'$. *Loc. cit.*, p. 48.

equation states is this: the quantities of all the commodities, services, and property rights sold during a year (or other period of time) multiplied by the prices paid for them, are equal to the total quantity of money given in exchange.⁵

The equation of exchange is merely a summation of millions of similar equations for specific transactions.⁶ If a person pays \$10 for 50 gallons of gasoline at 20 cents per gallon, the transaction can be expressed in the same way, namely: $20¢ \times 50 = \$10$. In the equation of exchange, instead of 20 cents, we have a composite price of all commodities, services, and property rights (P); instead of 50 gallons of gasoline, we have the composite total of the bushels of wheat, the barrels of oil, the pounds of butter, the bales of cotton, the acres of land, the shares of stock, the hours of employment, and so on, sold in the course of the year (T); and instead of \$10, the money paid for gasoline, we have the total sum paid for all commodities, services, and property rights (MV).

MONEY AND THE PRICE LEVEL

As a truism, the equation of exchange proves nothing. As a tool of analysis, however, it is used to clarify a fundamental conclusion of the transactions theory. This fundamental conclusion may be stated as follows: *Other things remaining equal, the general price level varies directly and proportionately with the supply of money, and inversely and proportionately with the demand for money.*⁷

For the analysis of the foregoing proposition, it is desirable to transpose the equation of exchange by dividing through by T . We then have

$$P = \frac{MV}{T}$$

The supply of money thus appears as the numerator of the fraction on the right-hand side of the equation; and the demand for money, as the denominator. The relationship between the supply of money, the demand for money, and the general price level now becomes clear. If the supply of money (MV) is increased, and there is no change in T —"other things remaining equal"— P must also rise in the same proportion. Similarly, if the demand for money (T) rises, and no change occurs in supply, P must necessarily fall proportionately.

Arbitrary figures may be substituted in the equation of exchange for

⁵ In setting up the equation, allowance may be made for barter transactions, the use of money in giving gifts and bequests, the payment of outstanding debts from past periods, the sale of goods for which payment is to be made in future periods, etc. See Arthur W. Marget *The Theory of Prices* (New York: Prentice-Hall, Inc., 1938), I, 46-68.

⁶ See Fisher, *op. cit.*, p. 16.

⁷ This proposition is often described as the "quantity theory" of the value of money. Because the term *quantity theory* seems to lay special emphasis upon the quantity of money and because it has been the subject of endless controversy in view of that alleged emphasis the term has been avoided in the description of the transactions theory.

purposes of illustration. Suppose that the average supply of money in a particular period of time is \$1,000, that it has an average velocity of 10, and that the volume of trade is 10,000 units of commodities, services, and property rights. Then the price level per unit is one dollar, or, as an index number, say, 100. Now if the average quantity of money is doubled, and the transactions velocity and the volume of trade are unchanged, the price level rises to 200. Again, if the volume of trade is doubled and the average quantity of money and its velocity are unchanged, the price level falls to 50.

Mixed Fluctuations.—Modern transactions theorists do not believe that "other things" remain stationary. They do not hold that an increase in the supply of money will occur with no change in the demand, or that the demand will increase with no change in the quantity of money and its velocity. It is recognized, on the contrary, that the three immediate determinants may all fluctuate in any period of time. An increase in the quantity of money, for example, may be offset by a decline in its velocity, so that the general price level is not affected. In terms of the foregoing illustration, the quantity of money may be doubled to \$2,000, but the velocity may fall from ten to five. Again, a decline in the quantity of hand-to-hand money may be offset wholly or in part by an increase in the quantity of bank demand deposits; an increase in M or V may be offset in whole or in part by an increase in T ; or the price level may be doubly depressed by a decrease in M or V coupled with an increase in T . In a word, numerous combinations of changes in the immediate determinants of the price level are possible; hence it is the *net effect* of the diverse fluctuations which is reflected in actual price level changes.

Statistical Verification of the Transactions Theory.—Some attempts have been made to verify the transactions theory by substituting in the equation of exchange figures which are presumed to be accurate estimates of the three immediate determinants. On the whole, however, the results have not been satisfactory.⁸ Reasonably accurate figures for the available quantities of hand-to-hand money and of bank demand deposits can be obtained from governmental and bank reports; and data respecting the turnover of bank demand deposits are collected by several statistical agencies. On the other hand, it is impossible accurately to measure the turnover of hand-to-hand money. Some estimates have been based upon the flow of hand-to-hand money through the federal reserve banks, but wide margins of error must be allowed for. But it is the demand for money or the volume of trade that is the chief stumbling block which obstructs statistical verification. Because the volume of trade is conceived to include not only all transactions in tangible goods but also all transactions in intangibles, such as the sale of personal services, as well as the successive sales of the same goods, the possibility of accurately estimating the total is obviously remote.

Statistical verification of the transactions theory, considering the present

⁸ See, for example, Fisher, *op. cit.*, pp. 276-319.

state of our data, must therefore be held impossible. But the fact does not detract from the usefulness of the theory as a tool in analyzing monetary problems. The various propositions included within the scope of the theory, though not provable, appear to be quite reasonable. It is logical to suppose, for example, that if everybody were given exactly twice as much money as he has at the moment, there being no increase whatsoever in the average transactions velocity or in the quantity of goods to be exchanged, the increased demand for goods would boost prices to the point where everybody would be returned to his former position, that is, to the point where the general price level would be exactly double what it had been before.⁹

The Cash-Balance Theory

The cash-balance theory, like the transactions theory, is based upon a supply and demand analysis, but the cash-balance theorists prefer to think of the supply of and demand for money as obtaining at a particular moment of time, rather than as obtaining in a period of time. (The time element, however, plays an important role in the cash-balance theory, as we shall see in the following discussion.) The supply of and demand for money, in their view, is thus made directly comparable with the supply of and demand for any good. The supply of money may be thought of as a schedule of the quantities which people are willing to offer for goods at various prices; and the demand as a schedule of the quantities of money which the people will take or hold according to their decisions as to the amount of purchasing power which they want to retain.

Because the supply of money is considered as of a moment of time, the cash-balance theorists do not employ the concept of transactions velocity. Money does not pass from hand to hand in a moment of time. The supply, then, is stated in terms of the quantity of hand-to-hand money and of bank demand deposits available at a given time; and to estimate the total accurately, it is necessary to eliminate duplications as in the case of the transactions theory.

DEMAND FOR PURCHASING POWER

The cash-balance theorists describe the demand for money as the determination of the people to retain the power to purchase a certain volume of commodities, services, and property rights. An increase in the demand for money, therefore, is found in the decisions of the people to retain the power to purchase a larger quantity of commodities, services, and property rights than formerly; and a decrease in the demand for money is found in the decisions of the people to retain purchasing power with respect to a smaller quantity of commodities, services, and property rights than formerly.

⁹ C. J. D. H. Robertson, *Money* (New York: Harcourt, Brace and Company, 1929), pp. 31-34.

Almost everybody decides to retain a cash balance so that he may have available the power to purchase a certain quantity of goods in the future. An industrial worker who receives wages of \$200 per month does not ordinarily spend the entire sum immediately it is received. In the early part of the month, he probably retains most of it as a cash balance, and spends it little by little as the month progresses. If the wage earner has a cash balance of \$200 at the beginning of the month and a balance of zero at the end of the month, his average cash balance throughout the month would probably be in the vicinity of \$100. Hence he must have decided to retain on the average the power to purchase half the goods which he expected to buy during the month.

Businessmen, banks, governmental bodies, and other individuals and organizations also find it highly desirable to maintain cash balances. In some instances, cash balances are maintained to guarantee the solvency of their holders; and in others, they are maintained because their holders plan to use them to acquire commodities, services, and property rights in the future. At a given time, therefore, the aggregate of the cash balances of wage earners, businessmen, governmental bodies, and other individuals and enterprises represents the quantity of commodities, services, and property rights in respect to which the people of the nation as a whole desire to retain purchasing power.¹⁰

CASH-BALANCE EQUATION OF EXCHANGE

The total quantity of the commodities, services, and property rights which will be bought in a given period of time, say a year, may be expressed, again, as T or the volume of trade. The symbol K may be introduced to stand for that proportion of the year's volume of trade in respect to which the people decide to retain purchasing power in the form of cash balances. Hence the demand for money is KT . Using M to stand for the quantity of hand-to-hand money and of bank demand deposits available at a given time, and P as an index number of the general price level, the cash-balance theorists are able to construct an equation of exchange of the following form:

$$M = KTP$$

This equation, like that of the transactions theory, is a truism, for it merely states that the purchasing power of the available quantity of money held as cash balances is equal to the value of the commodities, services, and property rights in respect to which the people retain purchasing power. The cash-balance equation proves nothing, but it is used by the cash-balance theorists in the exposition of their fundamental conclusion respecting the relationship between the value of money, on the one hand, and the supply of and demand for money, on the other—a fundamental conclusion identical with that given in our discussion of the transactions theory, namely, that,

¹⁰ Cf. Robertson, *op. cit.*, 38-39.

other things being equal, the general price level varies directly and proportionately with the supply of money, and inversely and proportionately with the demand for money.

The following transposition of the cash-balance equation simplifies the exposition:

$$P = \frac{M}{KT}$$

Thus, once again, we have M or the supply of money as the numerator of a fraction, and KT or the demand for money as the denominator. If KT remains unchanged, and if M is increased, P must increase in the same proportion; or if M remains unchanged, and KT is increased, P must fall in inverse proportion. Again it is recognized that "other things" do not necessarily remain stationary. An increase in K may be offset by an increase in M ; or an increase in T may be wholly or partially offset by a decrease in K ; or a decrease in T may be wholly or partially offset by a decrease in M . Many combinations of changes are possible.

SIZE OF CASH BALANCES AND THE DEMAND FOR MONEY

An understanding of the cash-balance theory sometimes seems difficult to grasp because the cash-balance theorists appear to be saying that the total quantity of money available is equal to the total quantity which people decide to hold as cash balances—a proposition which is so obvious that it apparently has little significance. If \$100,000 is in circulation, the people must in general have that amount in their cash balances—they can have neither more nor less; if \$200,000, that, too, must rest in the cash balances of the general public. If *only* \$100,000 is in circulation, how can total cash balances amount to more than \$100,000, or how can the demand for money exceed \$100,000? The difficulty suggested by this question arises because of a failure to think of the demand for money as a demand for purchasing power with respect to a specific quantity of commodities, services, and property rights. For it is surely possible for the people, regardless of the quantity of money available, to decide to retain the power to purchase larger or smaller quantities of commodities, services, and property rights than they have retained previously.

To illustrate, let us suppose that a year's volume of trade of a certain country amounts to 1,200,000 units of goods, that the people decide to retain purchasing power with respect to a month's supply of goods (that is, K is $1/12$), and that the available quantity of money amounts to \$100,000. Substituting these figures in the cash-balance equation of exchange, we find that the price level is one dollar per unit, or, in terms of an index number, let us say, 100. Now suppose that the people decide to retain purchasing power sufficient to buy a two months' supply of goods. Assuming that there is no change in the quantity of money available, the only way that the

objective of the people can be achieved is by a fall in the price level to 50. If the price level falls to 50, the cash balances of the public amounting to \$100,000 will buy a two months' supply of goods. Similarly, if the people decide to retain purchasing power with respect to a supply of goods sufficient for only a half month, the price level would go to 200, for \$100,000 in the nation's cash balances would be able to buy only $1/24$ of the year's volume of trade. In summary, then, a change in the demand for money is reflected, not in an increase or decrease in the quantity of money held in the cash balances, but in a change in the purchasing power of total cash balances.

Changes in the demand for money are translated into changes in the general price level through the actions which people take in order to retain purchasing power with respect to larger or smaller quantities of goods. If the demand for money is increasing, the buyers of goods are less willing to give money for goods, and the sellers are more anxious than before to exchange their goods for money. The reduced demand for goods and the increased supply cause the general price level to fall, and, even though the total quantity of money available is not affected, the objective of holding purchasing power with respect to larger quantities of goods is achieved. If the demand for money is decreasing, buyers who have money in their possession are more willing to offer it in exchange for goods, while the sellers are less anxious to exchange their goods for money. This situation means an expansion in the demand for goods and a reduction in the supply, the result of which is found in a rising price level. Hence the purchasing power of the cash balances falls, although there need be no change in the size of the cash balances.

RELATIONSHIP OF K AND V

Although individuals decide upon the size of their cash balances by weighing the relative advantages of buying goods immediately or of retaining purchasing power in the form of money, the determinants of K cannot be stated purely in psychological terms. For the decisions are based upon many economic factors. Upon analysis, indeed, we find that the economic factors concerned are precisely those which we listed as the determinants of the transactions velocity of money (V). As a matter of fact, we may go a step further and point out that K and V are very closely related; in a word, they are reciprocal to each other. If people decide to retain purchasing power with respect to larger quantities of goods, the transactions velocity of money falls in inverse proportion; and if people desire to reduce the purchasing power retained as cash balances, V rises in inverse proportion.

The relationship between K and V can easily be illustrated if we again make use of certain assumed figures. Let us suppose that the volume of trade amounts to an annual total of 1,200,000 units of goods, that the average quantity of money available is \$100,000, and that the average velocity of money is twelve. Then the average price per unit of goods is one dollar.

In the cash-balance view, the available quantity of money, \$100,000, must be present in the nation's cash balances, and if the average price of a unit of goods is one dollar, the cash balances represent purchasing power with respect to 100,000 units of goods. K , then, is $1/12$ or $1/V$. Suppose, now, that the transactions velocity of money falls to six, and that the average quantity of money and the volume of trade remain unchanged. The people in general now offer each unit of money in exchange only half as frequently as before, and if the total quantity of goods is to be sold, the unit price must fall to 50 cents. But if the price falls to 50 cents, the \$100,000 retained in cash balances represents purchasing power with respect to 200,000 units of goods, that is, K is $1/6$.

The reciprocal relationship which exists between K and V makes for simplicity in reconciling the transactions and cash-balance theories, for if $1/K$ is substituted for V in the transactions equation of exchange, the cash-balance equation is produced, and if $1/V$ is substituted for K in the cash-balance equation, the transactions equation is produced.

Chapter 25

THE INCOME THEORY

Although most modern economists accept the conclusions of the transactions and cash-balance theories respecting the relationship between the supply of money, the demand for money, and the general price level, some of them feel that these theories do not provide adequate tools for the analysis of the underlying forces which produce changes in the value of money. The determinants of M , V , and T may be studied at great length, and yet the relationship between them and P cannot be accurately gauged. In other words, the transactions and cash-balance theories are criticized on the ground that, though they explain why the price level is what it is at a particular moment or in a particular period of time, they do not adequately explain the processes which bring about changes in the price level.

The proponents of the income theory, on the other hand, believe that their "approach" provides the means by which the price level and changes in the price level may be directly related to all the multitudinous phases of economic activity—the profit expectations of enterprisers, the production of goods, the payment of costs, the receipt of money income, spending for consumption goods, saving, investment, the hoarding and dishoarding of money, the creation and destruction of money, and so on.

Major Propositions of the Income Theory

In the presentation of the income theory, we shall find it advantageous at the outset to state briefly the major propositions of the theory so that the place of each element in the general theoretical structure may be understood. The basic propositions may be enumerated as follows:

- 1) In any period of time, the value of money depends upon the relationship between the flow of money income and its disposal, on the one hand, and the flow of real income (goods) offered for sale in the market, on the other.

- 2) The flow of money income depends upon the quantity of money available and its income or circuit velocity.

- 3) The quantity of money available depends upon the monetary standard, reserve regulations, the structure of the banking system, and so on.

(The determinants of the quantity of money should be familiar from our discussion of the transactions and cash-balance theories in the preceding chapter.)

4) The income or circuit velocity of money is determined by the profit expectations of enterprisers, the "period of production," and the decisions of the agents of production respecting the disposal of their money income.

5) The flow of real income depends upon a host of determinants largely identical with those mentioned in the preceding chapter as determinants of T in the transactions and cash-balance theories.

6) The money income "generated" in any period is equal to the money value of the goods produced—the "value added by production"—in that period.

7) But the money offered in the market for newly produced goods may be more or less than the money income generated in their production, because of hoarding and dishoarding and the creation and destruction of money.

8) Saving is the failure to spend money income for new consumption goods in the period in which it becomes available for spending, and investment is the spending of money income for new capital goods; therefore, the failure to spend money income for either new consumption or new capital goods is reflected in the hoarding or destruction of money, and the expenditure for new consumption and capital goods of an amount of money in excess of the money income generated in their production is made possible by the dishoarding or creation of money.

9) In any period, therefore, saving and investment are not necessarily equal—they are not brought into equilibrium by "natural" rates of interest. Saving may exceed investment because of hoarding and the destruction of money; and investment may exceed saving because of dishoarding and the creation of new money.

10) When saving exceeds investment, the price level falls, and when investment exceeds saving, the price level rises.

Money Income, Real Income, and Income Velocity

MONEY INCOME AND REAL INCOME

The national income of a country in a given period of time, such as a year, may be stated in terms of the net money earnings received by the factors or agents of production, or it may be stated in terms of the consumption and capital goods produced. The distinction between money income and real income is well understood. The money income is received by wage earners, landlords, capitalists, and enterprisers as wages, rent, interest, and profits—as payments made by the enterprisers who marshal productive facilities in turning out consumption and capital goods. The real income consists of the consumption and capital goods themselves. Consumption goods

are those which are immediately capable of satisfying the wants of consumers, such as food, clothing, houses, and household equipment, and capital goods are those designed for use as tools of further production, such as raw materials, manufacturing supplies, machinery, and factory buildings.

In any economic system in which money is used as a medium of exchange, a stream of money income flows into the hands of the agents of production (that is, the general public) and is available for spending for the new consumption and capital goods which enter the markets from the farms, the shops, and the factories. It is with the relationship between the stream of money income and the stream of real income or goods that the income theory of the value of money is concerned. Stated in its simplest terms, the income theory holds that the prices of consumption and capital goods—and, therefore, the value of money—are determined by the decisions of income receivers in offering their money in exchange for goods. Any situation which reduces the offering of money for goods, while leaving the flow of goods unchanged, or which increases the flow of goods, while leaving unaltered the quantity of money offered in exchange, has the effect of reducing the general price level; and any situation which increases the amount of money offered for goods without affecting the flow of goods, or which decreases the flow of goods without changing the amount of money offered, has the effect of causing the general price level to rise.

INCOME VELOCITY OF MONEY

The money income of a nation in a given period of time is not solely dependent upon the quantity of monetary mediums available on the average in that period, for it is clear that the same monetary units may appear again and again as money income. Consideration must be given to the "income velocity" or "circuit velocity" of money. Income or circuit velocity may be defined as the number of times that the average quantity of money in circulation is received as money income by the agents of production in a designated period of time. The total money income of the period is equal, therefore, to the average quantity times its average income velocity.

When the movement of money in a modern economic system is observed, the nature of the concept *income velocity* becomes clearer. A large portion of the money income received by the agents of production is spent for consumption goods, but the enterprisers in the consumption goods industries who receive the proceeds of sales do not regard all the money received as income. Most of it merely represents a return upon expenditures incurred in producing the goods. Only that portion of the money received which can be regarded as profits—the return to the enterprisers themselves as their reward for risk bearing—is true money income at this point. Now the enterprisers in the consumption goods industries, in order to replenish the inventories depleted by sales, carry on further productive operations. Their pay-

ments of wages and salaries to employees immediately return to the stream of money income, as do their payments of interest and rentals to capitalists and landlords.

Some of the money which the enterprisers in the consumption goods industries receive in the sale of their goods is likely to be spent in the purchase of raw materials and other supplies from the enterprisers in the capital goods industries; but only that portion of the selling price of the capital goods which may be regarded as profits at once enters the stream of money income. The remainder is a return to the enterprisers in the capital goods industries to cover their previous outlays in producing the goods. But when these enterprisers decide to produce additional goods to take the place of those sold, they cause additional sums of money to enter the stream of money income as they make payments of wages, interest, and rent. If they, in turn, must buy raw materials from other enterprisers, further payments of money are made which are, in the hands of the sellers of materials, money income in part and a return on previous outlays in part. The taxes which enterprisers must pay to governmental bodies may also be regarded as payments to other enterprisers, for the reason that governments are properly classified as productive organizations. The tax revenues, too, re-enter the stream of money income as governments use them to make various outlays, as in meeting their pay rolls and the interest requirements upon their outstanding obligations.

The foregoing description may be summarized by saying that as the existing supply of money flows through the economic system, portions of it break off from the main stream to become the money income of various productive agents.¹ It should be immediately obvious that the income velocity of money is quite distinct from the "transactions velocity," which has an important place in the transactions theory. The income velocity of money is always less than the transactions velocity, because money is used in innumerable exchanges which account for little or no money income.

DETERMINANTS OF INCOME VELOCITY

The income velocity of money—and, therefore, the money income of a nation in a given period—is determined, in the first place, by the decisions of enterprisers regarding the volume of their output. And the decisions of enterprisers, in turn, are based upon their profit expectations. Because the profit motive dominates in a capitalistic society, the volume of output is determined at a level at which, in the estimation of the enterprisers, their

¹ Depreciation is the only cost of enterprisers which does not call for an immediate or a future money payment. But the charging of depreciation as a cost of production does not destroy money or necessarily impede its flow through the economic system. When enterprisers sell their products at prices large enough to reimburse them for all costs, including depreciation, the money which they receive as a "return on depreciation," as it might be called, is fully available for disposal. It could be used in buying materials, paying wages, meeting the costs of maintenance and repairs, or paying for additional equipment; if used for any of these purposes, it would continue its circuit through the economic system.

profits will be maximized (or their losses will be minimized). Even though additional factors of production are available, the enterprisers are not likely to bring them into employment if the total profits derived from the sale of an increased output are expected to be less than those gained at current levels of output; and, indeed, the enterprisers may be expected to reduce the employment of the factors if they believe that that action will produce profits in excess of those currently derived.

The anticipated profits of enterprisers must be calculated in terms of the supply and demand situation which governs the marketing of their particular products. On the supply side, the enterprisers must take into consideration the cost of the various supplies of the factors of production required to produce various outputs—wage rates, salaries, interest rates, rentals, expenses of repair and maintenance, the prices of raw materials—-together with the efficiency of the factors when used in various combinations. On the demand side, consideration must be given to the money income received by potential buyers, as well as to their willingness to use that money income in buying consumption and capital goods. The principal decisions as to the volume of production must be made by the enterprisers in the consumption goods industries, for their decisions determine not only the output of consumption goods, but ultimately the output of capital goods as well.

A second important determinant of the income velocity of money is the "period of production," or the time which must elapse from the beginning of productive operations until goods are made available to final purchasers. The "period of production," therefore, obviously depends upon the structure of industry—whether, for example, goods can be turned out by simple techniques or whether time-consuming processes are necessary; whether productive operations are broken down into numerous stages, each of which is undertaken by a different enterprise, or whether all stages are completed in a single factory; and whether goods are distributed through numerous middlemen or possibly direct from producer to final purchaser. In a word, the extension of roundabout methods of production means a lengthening of the period of production and a slowing down of the income velocity of money.

The decisions of income receivers as to the disposal of the money in their possession constitute a third determinant of the income velocity of money. The nature of the alternatives among which income receivers may choose will be discussed in subsequent sections of this chapter; here it is sufficient to mention that the speed with which money turns up in various hands as income is obviously affected by individual decisions to spend or not to spend for consumption goods, to buy consumption goods now or at a later time, to invest or not to invest in capital goods, to borrow for consumption purposes, and so on.

MONEY INCOME AND PURCHASING POWER

The money income received by the agents of production in any period is equal to the value of goods produced in that period—or, technically stated, to the “value added by production.” The equality arises from the fact that the shares of money income received by the agents of production are at the same time the costs of production in the viewpoint of the enterprisers. It follows, therefore, that the economic system “generates” a sufficient quantity of purchasing power to make possible the sale of all goods at prices adequate to cover their costs of production, including the profits enjoyed by the enterprisers themselves.

The relationship between the quantity of money income generated and the selling prices of goods may be clarified by means of an illustration. For the sake of simplicity, it is desirable to think of the receiving of money income and its disposal as actions which take place in different “periods.” A period, then, may be defined as a length of time in which money income may be received but in which it cannot be spent for consumption goods, invested in capital goods, or otherwise disposed of. Thus if \$1,000 of money income is received in Period I, it is available for disposal in Period II, and the money income which is received in Period II may be spent, invested, or otherwise disposed of in Period III.

Let us assume that enterprisers in the consumption and capital goods industries anticipate that they will be able to sell 1,000 units of their products at a dollar per unit, and that their total costs of production, other than profits, will be \$900. If their expectations are realized, they will enjoy a profit of \$100. In carrying on their productive operations in Period I, they pay out \$900 to wage earners, salaried workers, capitalists, and landlords, and the entire sum is immediate money income to its recipients. In Period I, moreover, the enterprisers sell the goods which they produced in Period O, thereby deriving a profit of \$100—assuming identical output, costs, and anticipated selling prices in both periods—which expands the money income of Period I. Hence the outlays for production in Period I plus the profits derived from the sale of goods produced in Period O provide a total money income of \$1,000 which is available for the purchase in Period II of the 1,000 units of goods fabricated. In Period II, therefore, sufficient purchasing power is available *to make possible* the sale of 1,000 units at a dollar per unit.

Consumption, Saving, and Investment

CONSUMPTION AND SAVING

The receivers of money income have the choice of spending it for consumption goods or of saving it—and this is necessarily true if we define “saving” as *the failure to spend money income for consumption goods in the period in which it becomes available for spending*. Because most people who seek to gain a money income are primarily interested in taking care

of their day-by-day physical needs, it is reasonable to assume that the greater part of the money income of any nation is spent for consumption goods. Generally speaking, the poorer a country is, the greater is the proportion of its money income devoted to consumption, and the richer, the greater is the proportion devoted to saving. In a poor country, the limited output of industry must be used almost entirely to meet the immediate requirements of day-by-day physical existence; but in a rich country, the output of industry may be so abundant that the devotion of a portion of people's money income to saving may work no real hardship.

But if income receivers decide to save a portion of their money income, how can the profit expectations of enterprisers be realized? Referring to the illustration, the question may be restated in terms of dollars: If the agents of production receive \$1,000 as money income in Period I, and if they decide to save, say, 20 per cent, how can the enterprisers actually realize \$1,000 in Period II in the sale of their output of 1,000 units?

The answer to these questions is not difficult to find if it is assumed that the money income saved is devoted to investment. In that event, the "saved" purchasing power is really *spent*, so that the 1,000 units may be taken from the market at the enterprisers' anticipated selling price of one dollar per unit. To understand why we arrive at this conclusion, it is necessary to explain exactly what the income theorist has in mind when he speaks of "investment."

INVESTMENT

Investment, in the terminology of the income theory, is *the spending of money for new capital goods*. The term does not, therefore, refer to the purchase of stocks through the stock exchange or in the over-the-counter market, the making of loans by individuals and banking institutions, and the purchase of bonds, mortgages, notes, and other debt instruments. Such activities may result in investment, but they are not to be regarded as investment in themselves. The income theorists are interested in discovering what happens to the money loaned or expended in the purchase of securities. When a person buys a share of stock from another individual, the important question is what the seller of the stock does with the money he receives. If the seller spends the money for consumption goods, investment obviously does not take place; but if he spends it in buying a new machine for use in productive operations, investment does take place. When a corporation sells a new issue of bonds, and uses the proceeds to construct additional plants and equipment, investment takes place—but the investment occurs in the spending of the proceeds for the plant and equipment, and not in the acquisition of the bonds by the purchasers.

It is necessary to emphasize, moreover, that the spending of money for capital equipment already in existence is not included in the investment concept. If, for example, Corporation A sells stock in the market and uses

the proceeds to buy the existing plant and equipment of Corporation B, there is no investment, for the total capital of the nation is in no way affected.

SAVING AND INVESTMENT

Money income which is saved may be invested by the savers themselves or it may be made available to others for investment. Corporations invest their savings when they "plow under" profits by using them for the expansion of their capital equipment, and individual proprietors may do likewise with that portion of their money income which they do not spend for consumption goods. Many savers, however, do not directly purchase capital goods but lend their savings to others for investment. Savers may make their money savings directly available to enterprisers by buying newly issued stocks and bonds, the proceeds of which are used for capital expansion; or they may make them available through intermediaries by depositing the savings in banking institutions which, in turn, buy securities or make loans, the proceeds of which are used for capital expansion.

Investment in no way impedes the flow of money income, for the spending of money for capital goods places it in the hands of enterprisers who produce such goods; and the enterprisers use it to pay wages, interest, and rent to the factors of production which they hire, and to pay, as one might say, profits to themselves. Thus all the money spent for capital expansion turns up as money income in the hands of various agents of production; as money income, it is once again available for spending or for saving.

Referring again to the illustration, we can readily see that the saving of 20 per cent of the money income of the agents of production, or \$200, need not cause the unit selling price of the 1,000 units of goods to fall to 80 cents. Assuming that the enterprisers in the consumption and capital goods industries have been able to plan their output intelligently, the output of 1,000 units should be comprised of 200 units of capital goods and 800 units of consumption goods. Thus the investment of \$200 in capital goods and the spending of \$800 for consumption goods would make the selling price of each unit one dollar. In the light of these considerations, a fundamental proposition may be deduced: the output of the consumption and capital goods industries may be sold at prices sufficient to cover all costs of production, including profits, if all money income is either spent for consumption goods or invested in the period in which it becomes available for disposal.

Inequality of Saving and Investment

ROLE OF INTEREST RATES

The devotion of savings to investment depends upon the decisions of income receivers as to the disposal of their money income and upon the

decisions of enterprisers who are the potential users of savings for capital expansion. The enterprisers, as always, are guided by their profit expectations, and their expectations are based upon their estimation of the productivity of the new capital in relation to the rates of interest they must pay in order to acquire loanable funds. If they believe that the addition of capital equipment will enable them to produce a larger output which can be sold at prices to yield a larger net profit than that currently derived, they will be anxious to acquire funds and devote them to the purchase of capital goods. In the minds of some enterprisers, large increases in profits through capital expansion may be anticipated, and they may be willing to pay high rates of interest for borrowed funds; while others, anticipating only a small increase in profits through the use of additional capital, may be willing to borrow only if the rates of interest are low. At any time, therefore, a demand for loanable funds exists in the familiar form, if presented graphically, of a curve descending from left to right.

Income receivers are also influenced by the rates of interest offered for money supplied as loanable funds in the market. The decision of income receivers is made, as it were, only after certain psychological conflicts have been reconciled—their “propensity to consume,” their desire to hold money itself as a store of purchasing power (their “liquidity preference,” as it has been called), and their desire to earn a rate of return and thereby increase their money income in future periods. When rates of interest are low, willingness to offer money as loanable funds in the market may be defeated by the “propensity to consume” and “liquidity preference,” but as rates of interest are increased, the inducement to forgo consumption and liquidity is strengthened. Hence at any time there exists a supply schedule of money savings, which, graphically presented, has the form of a curve ascending from left to right.

“Natural” Rates of Interest.—The economists of the classical school believed that the market rates of interest must always tend to a “natural” level at which the supply of and demand for savings would be in equilibrium—at a point, that is, which would equalize saving and investment. They looked upon saving as the only source of loanable funds, and they believed that savers as a matter of course would offer their savings in the market for whatever rates of interest could be earned. The classical economists made no allowance for the possibility that savers might hold a sterile supply of money even though they could earn a return by offering it for investment in the market. In regard to the demand for savings, the classical economists held that enterprisers could always expand their profits by borrowing available savings and using them to increase their output so long as idle factors of production were obtainable. That savings could be offered at very low rates of interest and find no borrowers, though idle factors were available, was not thought within the range of possibility.

In the classical view, therefore, enterprisers were expected to bid up

the rates of interest should idle factors be available, for their employment promised increased profits; and the high rates, it was thought, would encourage income receivers to curtail their consumption expenditures and devote a larger portion of their income to savings. If, on the other hand, few idle factors were available, the rates of interest would fall to low levels, and the people would have few inducements to save. At all times, therefore, the rates of interest would tend to the "natural" level which, in bringing saving and investment into equilibrium, would promote the "full employment"² of all factors of production.

Interest Rates in the Income Theory.—The income theorists deny that saving and investment are brought into equilibrium through the action of "natural" rates of interest. They accept the concept of "natural" rates as a valid tool of analysis, but they believe that the market rates of interest may be below or above the theoretical "natural" rates for indefinite periods. They hold, moreover, that discrepancies between market rates and "natural" rates do not result from mere temporary disturbances, but that they are a normal feature of economic life. There is, in other words, no force at work which would tend to cause the market rates continuously to coincide with the "natural" rates.

This conclusion of the income theorists is based upon their contention that there is no precise relationship between the volume of money savings and the supply of loanable funds offered for investment in the market. If the market rates of interest are determined by the supply of and demand for loanable funds, and if the supply of loanable funds is independent of the volume of money savings, then it must follow that the market rates of interest tend to bring the supply of and demand for loanable funds into equilibrium—and *not* saving and investment.

The position of the income theorists is obviously tenable if we accept the proposition that the volume of money savings and the supply of loanable funds are not identical. This proposition, in turn, has for its foundation the argument that savings may be hoarded or destroyed rather than invested, and that the supply of loanable funds may be augmented by the creation of new quantities of money and by the dishoarding of money income previously hoarded.

HOARDING AND DISHOARDING

Money may be hoarded as unspent hand-to-hand currency in the possession of income receivers and as increased balances in bank demand deposit accounts. In the latter instance, however, true hoarding occurs only if the banks do not offset the increase in idle balances by making funds in equal amount available to others for investment.

²For a discussion of the meaning and implications of "full employment," see below, pp. 424-425.

Hoarding may be initiated by enterprisers or by income receivers.³ Hoarding by enterprisers occurs when they fail to devote to current production all the proceeds from the sale of goods produced in the preceding period. If 1,000 units of goods are produced in Period I and are sold at a dollar per unit in Period II, and if the enterprisers pay out only \$800 in production in Period II because of a desire for liquidity, the stream of money income flowing into the hands of the factors of production is immediately reduced, and, assuming that costs are not forced down proportionately, the output of goods is also reduced. Because the decline in money income is accompanied by a decline in output, the price level may not be affected, but the real income of the nation is impaired.

When hoarding originates with income receivers, a portion of their money income is neither spent for new consumption goods nor made available for investment. The effective demand for goods is reduced, and, should the enterprisers fail to hold goods off the market, their selling prices fall below the anticipated levels. If, in Period II, income receivers offer only \$850 for the 1,000 units of goods produced in Period I, each unit can be sold for only 85 cents should all units be offered in the market. As a result, the profit margin of the enterprisers is wiped out and they suffer a loss of \$50. If the enterprisers hold 150 units off the market, they can still sell 850 units at one dollar per unit, but, unless they are willing to expand their inventories of unsold goods, they must curtail production in Period II—an action which would further reduce the stream of money income and which would lead to a further reduction in effective demand. The likelihood that enterprisers would be willing to increase their inventories of unsold goods in the face of a decline in demand would, of course, be quite remote.

Dishoarding is the spending for new consumption and capital goods of money hoarded in previous periods. Dishoarding upon the part of enterprisers means that they reduce the volume of unspent money in their possession. Their action has the effect of expanding the stream of money income as they pay wages, interest, and rent, but as this effect is accompanied presumably by an expansion of output, the price level may not be affected. When income receivers dishoard, they offer for new consumption goods and for investment a larger quantity of money than was received as money income in the preceding period, and their action is likely to cause the price level to rise, at least temporarily. If, in Period II, income receivers dishoard \$100 previously hoarded and offer \$1,100 for the 1,000 units of goods, each unit can be sold for \$1.10, unless, perhaps, the enterprisers reduce their inventories of unsold goods by offering for sale 1,100 units—an action which would be unlikely in view of the increase in effective demand.

³ Although enterprisers are also income receivers, their activities as managers of industry and as recipients of profits as personal income may be differentiated.

CREATION AND DESTRUCTION OF MONEY

The creation of new money affects the flow of money income and the flow of goods in much the same manner as does dishoarding; and the destruction of money has effects similar to those produced by hoarding. It is important to note, however, that in a modern economic system the creation of new money may be continued for an indefinite period, while dishoarding is always limited to the volume of previous hoardings; and that the destruction of money in certain periods is likely to progress much more rapidly than the mere accumulation of idle quantities of money in hoards.

In view of the lengthy discussion in previous chapters of the processes by which money is created and destroyed, little need be added at this point. Suffice it to recall that the most important act of money creation takes place when the commercial banks expand demand deposits in granting loans and purchasing securities, and that the most important act of destruction occurs when the commercial banks curtail demand deposits by receiving payment on loans and by selling securities from their portfolios. It will be recalled also that new money is created when the precious metals are mined and sold to the government, when they are imported and acquired by the government, and when the government issues its own types of hand-to-hand money; and that money is destroyed when monetary stocks of the precious metals are reduced by exportation and by sale for industrial uses, and when the government retires its issues of hand-to-hand money.

As in the case of hoarding and dishoarding, the creation and destruction of money—particularly bank demand deposits—may take place at the instance of income receivers or of enterprisers. Income receivers may borrow in order to expand their expenditures for consumption, or perhaps for the purpose of buying securities, as in the negotiation of collateral loans; and they may bring about the destruction of money by the repayment of loans previously negotiated. Enterprisers may initiate the creation of money because they desire either to expand productive operations with their present facilities or to extend their facilities by investing in new capital equipment; and they may bring about the destruction of money by repaying their loans.

Saving, Investment, and the Price Level

Because it is possible for income receivers and enterprisers to hoard and dishoard money, and because it is possible for governments and the banks to create and destroy money, the conclusion of the income theorists that saving and investment are not necessarily equal and that they do not necessarily tend to an equilibrium appears to be sound. In any period or series of periods, saving may exceed investment because the saved money income is hoarded or destroyed; and in any period or series of periods, investment may exceed saving because the saved money income devoted to

investment is augmented by the dishoarding of earlier savings and the creation of new money.

An excess of investment over saving in any period tends to cause the price level to rise, and an excess of saving over investment tends to cause it to fall. Let us consider an excess of investment over saving. Such an occurrence means that the people in a given period offer in exchange for new consumption and capital goods a quantity of money in excess of the money income derived in their production. This represents a rise in the effective demands for goods, and if the output of goods cannot be immediately increased, prices must rise. As the output of some kinds of goods can be expanded very quickly, the increase in effective demand may be balanced by an increase in effective supply so that no changes in prices result. To the extent, however, that industrial processes are of a roundabout character, the expansion of supply is likely to lag behind the increase in demand so that prices rise.

The rapidity with which prices rise depends to an important extent upon the availability of idle factors of production. If an initial excess of investment over saving causes a moderate rise in prices, the expansion of profit margins is likely to encourage enterprisers to expand their output. If idle factors are available, this objective can be reached with little or no increase in unit costs, and without the necessity, therefore, of further increases in selling prices. But as the supply of idle factors diminishes, the rise in selling prices is likely to be rapid and continuous, for in bidding against each other to obtain larger quantities of the factors, the enterprisers cause their costs to bound upward.

Even though the full employment of productive factors does not obtain, the excess of investment over saving may cause the prices of certain goods to rise rapidly if "bottleneck" conditions develop. The factors of production are not perfectly fluid, and any particular supply of land, labor, capital, or managerial ability may be usable in one industry but not in another. When, therefore, enterprisers strenuously compete with one another to obtain specialized factors, the bidding up of their prices increases unit costs—and hence selling prices—in certain industries, although other supplies of the factors not suitable for use in those industries may be available in abundance.

An excess of saving over investment means a reduction in the quantity of money offered in exchange for new consumption and capital goods—a reduction in effective demand. As the supply of goods is not likely to be immediately curtailed, the result is an initial decline in the price level. In those industries where readjustments in output may be made quickly, the reduction in demand may soon be balanced by a reduction in supply, so that further declines in selling prices need not take place. But in many industries with heavy overhead costs, output may be kept at substantial proportions so long as the selling prices are sufficient to cover direct costs

and to make some contribution toward the overhead costs. In these industries, therefore, the decline in selling prices may be rapid and continuous.

Some Consequences of the Income Theory

MONEY INCOME, SAVING, AND CAPITAL FORMATION

The income theorists have performed a notable service in insisting that there exists no necessary relationship between the act of saving money income and the formation of capital, that is, the investment of the savings in new capital equipment. Logical parallels cannot be drawn between the means of capital formation in primitive societies and the processes of capital formation in monetary economies. The primitive hunter who spent a day in fashioning a stone ax to be used in the chase "saved" in the sense that he did not devote the day to the actual stalking of wild animals for immediate consumption; and his "saving" was directly invested in new capital because his time was devoted to the production of the weapon. But in a modern economic society where money is used as a medium of exchange, people may refrain from spending their money income for consumption goods; yet their curtailment of consumption does not assure that capital equipment of equivalent value will be produced.

Money is not capital, although it can be used to produce capital in so far as it is spent in hiring the factors of production to fabricate capital equipment. If, however, the saved money income is hoarded or destroyed, capital expansion does not take place. More significant is the fact that the factors of production can be hired to produce capital equipment by the payment of money which does not represent savings out of current money income—money which is dishoarded from the savings of previous periods, and, particularly, money which is newly created as in the granting of loans and the purchase of securities by the commercial banks.

THEORY OF THE MULTIPLIER

An original disparity between the amount of saving and the amount of investment may produce not only an immediate change in the flow of money income but also a continuance of the flow at a higher or a lower level in succeeding periods, so that the original disparity is reflected several times over in, say, a year in the national money income. The total increase or decrease in money income which results from disparities between saving and investment is referred to as the *multiplier effect*, and the ratio between the total increase or decrease and the original disparity is called the *multiplier*.

Suppose, for example, that the money income of Period I is \$1,000, that savings out of the money income of the period amount to \$100, and that the investment of Period II amounts to \$250. The excess investment of \$150 in Period II—whether it is made possible by dishoarding or by the creation

of new money—expands the money income of that period to \$1,150, and if this entire amount is spent for consumption goods or is invested in Period III, the money income of Period III is also \$1,150. And so on with subsequent periods. Should no “leakages” occur through hoarding or the destruction of money, the money income of each period would be continued at the new higher level indefinitely. Within five periods, for example, the total increase in money income would amount to \$750—and the ratio between this figure and the original excess of investment would give a multiplier of five. When “leakages” occur by way of hoarding or the destruction of money, the magnitude of the multiplier drops. If \$50 were hoarded or destroyed in Period III, and an equal amount in Periods IV and V, the multiplier would be two, for money income would have been increased \$150 in Period II, \$100 in Period III, and \$50 in Period IV, a total expansion of \$300.

The multiplier effect may, of course, be observed at work in the opposite direction, as when an original excess of saving over investment brings about a reduction in the flow of money income in successive periods.

The significance of the multiplier and of the multiplier effect lies not so much in the fact that money income is increased or decreased in successive periods as in the fact that the expansion or contraction of money income is likely to be accompanied by an expansion or contraction in the flow of goods. An expansion of money income reflected in an increased demand for goods is likely to improve the profit expectations of enterprisers and to encourage them to expand their outputs. Likewise, a contraction of money income due to an original excess of saving over investment, by reducing effective demand, is likely to dampen the profit expectations of enterprisers and lead them to curtail production.

The theory of the multiplier has had important practical applications in the promotion of pump-priming expenditures by governments in periods of economic depression. Those who propose such expenditures anticipate that any given outlay of the government for relief or public works will, in view of the multiplier effect, bring about an increase in the national money income in an amount several times the outlay. Even wasteful public expenditures of the “boondoggling” variety may be defended as contributing to a severalfold expansion of national money income, although well-planned public works of general usefulness are obviously to be preferred. The deficits which governments incur in their pump-priming activities, it is claimed, should represent no serious burden upon an economic system, because they can be easily met in the future out of the increased national income they have made possible.



Part VI

MONETARY POLICY

The Scope of Monetary Policy

Monetary Policy of the Federal Reserve System

Monetary Policy of the Treasury



Chapter 26

THE SCOPE OF MONETARY POLICY

The Nature of Monetary Policy

In an earlier chapter, the central bank was described as an institution charged with the responsibility of managing the expansion and contraction of the volume of money in the interests of the general public welfare. But such a description of the central bank remains incomplete until full consideration is given to the judgments which the officials of the central bank must form in deciding how the general public welfare may best be served. The officials of the central bank, in other words, must establish specific objectives or goals to justify the decisions they make in exercising their powers of monetary management. Judgments with respect to objectives, together with the means employed to achieve those objectives, are described by the term *monetary policy*.

Monetary policy, therefore, is *the management of the expansion and contraction of the volume of money for the attainment of specific objectives*. In a broad sense, monetary and banking regulations of all varieties are expressions of monetary policy, since they are influential in controlling the volume of money available throughout the economic system. Such regulations include limitations upon the organization of new banking institutions, bank capital and surplus requirements, legislation and administrative rulings respecting the types of loans which banks may grant and the types of securities which they may buy, and limitations upon the rates of interest which they may charge upon loans. But regulations of these types are not usually subject to rapid alteration to meet changing economic conditions, and their objectives at best are vague. In a stricter sense, therefore—the sense in which the term is used in this chapter and in the two chapters following—monetary policy refers to the clearly defined objectives of monetary management and to the rapidly adjustable tools or devices by which management can be exercised.

In a highly developed financial system, such as that of the United States, monetary policy is chiefly concerned with the expansion and contraction of bank credit, because, as we have had many occasions to note, banks are the principal creators of modern money. For that reason, monetary policy,

is often regarded as synonymous with "bank credit control" or simply "credit control." It is to be remembered, however, that monetary policy also finds expression in such actions as the establishment and suspension of monetary standards, the issue and retirement of money by the national government, and the raising and spending of government revenue.

Monetary policy has both quantitative and qualitative aspects. The quantitative aspects predominate when the devices of management are used merely to regulate the total volume of money which is available or which can be made available for all purposes, regardless of their nature; the qualitative aspects become predominant when control is exercised to limit the uses to which money is put. If, for example, the monetary authority adopts measures to increase the capacity of the commercial banks to grant additional loans for any and all purposes, the action is of a quantitative character; but if the measures are designed to make credit available to producers while restricting that available to consumers, they are of a qualitative character.

The Agencies of Monetary Policy

Before 1933, the central bank was generally thought to be the ideal agency in which to vest the responsibility for the formulation and execution of whatever monetary policies the changing economic scene might require. But the situation has been radically changed since then in many countries, for the treasury officials of national governments have come more and more to exercise an important influence with respect to the volume of money, either in cooperation with the officials of the central bank or independently of them. That the fiscal and monetary operations of a national government tend to have profound repercussions upon all phases of economic activity has, of course, long been recognized, but until recently the significance of these operations was often dismissed with only the thought that the central bank would have to make proper adjustments either to give effect to them or to offset them. In late years, however, there has been a growing interest in the prospects of formulating treasury policies, not in a haphazard fashion, but with the intention of producing certain effects throughout the economic system.

The principal reason for the ascendancy of the treasury as an agency of monetary policy is found in the expanded role of governments as supervisors and controllers of production and distribution. Because of the breakdowns of the traditional forces of equilibrium in economic systems, national governments have assumed the responsibility of reconstructing the economic order by the exercise of supervision and control through numerous administrative agencies, and they have seemingly preferred to keep many of the potent weapons of monetary policy in the hands of administrative officials rather than to entrust them to a relatively independent agency such

as the central bank. In the United States, for example, the Board of Governors of the Federal Reserve System confessed in 1938 that "under existing conditions the Treasury's powers to influence member bank reserves outweigh those possessed by the Federal Reserve System,"¹ and it subsequently asked Congress to grant a substantial increase in its powers.² But Congress, apparently satisfied with the Treasury's dominant position, failed to accede to the board's plea.

The Objectives of Monetary Policy

When the central bank³ sets out to control the expansion and contraction of the volume of money, its objectives may be narrow in scope or they may be comprehensive. The objectives of monetary policy have been variously defined and classified, but they may be conveniently summarized under two heads: (1) those of minor scope have as their goal the protection of the monetary standard, the stabilization of the money market, the granting of assistance to the national treasury in meeting its fiscal requirements, and the extension of aid to foreign governments and foreign central banks; and (2) those of major scope have for their purpose the stabilization of business activity. The various goals which come within the purview of these two categories are not always mutually exclusive, but the distinction is desirable as indicating whether the central bank will play a circumscribed role or a dominant one.

Interest in the possibility of stabilizing business activity has developed almost entirely since the First World War, and particularly as a result of the impact of the world-wide depression beginning in 1929. Before that war as well as during the 1920's, the duties of central banks relative to monetary management were looked upon as largely of a routine character; and no great attention was paid to the tremendous power of the treasury to influence the monetary situation. Officials of central banks were merely expected to make adjustments in their discount rates and possibly to buy and sell securities in the open market, deciding upon these actions more or less "automatically" in accordance with changes in the volume of gold held by the banking system, the inflow and outflow of gold, the fluctuations in market rates of interest, and variations in foreign exchange rates.

The vast dislocation of economic systems following 1929, however, gave rise to an intensive re-examination of the role of the volume of money in prosperity and depression, and of the possibility of controlling it in the interest of producing greater stability in economic life. All kinds of pro-

¹ *Annual Report of the Board of Governors of the Federal Reserve System, 1938, p. 5.*

² See below, p. 446.

³ In the discussion of the objectives of monetary policy in the remainder of this chapter, we shall for convenience speak of the central bank singly, although, as we have just pointed out, the treasury may have an important part to play in the formulation and execution of monetary policies.

posals have been advanced as means to avoid the overdevelopment and waste of boom periods, on the one hand, and the stagnation and miseries of periods of depression, on the other; some of these proposals are directly concerned with the expansion and contraction of the volume of money, and therefore come within the purview of monetary policy, while others involve the volume of money only indirectly or incidentally. All, however, are indicative of the ferment in the minds of thinking men and women as they have viewed the sad disorganization of broken-down economic systems and the holocaust of a new war which found many of its roots in economic chaos.

What role must the central bank play in the formulation and execution of the monetary policy of a country? Should it be expected to adopt policies designed to eliminate the rigors of the business cycle, or should it be regarded as performing the maximum service possible if it fulfills the tasks of the pre-1929 variety? Should it, in other words, formulate policies whose goal is the stabilization of business activity, or should it be content merely to attain the minor goals we have listed? These are the questions with which we shall be concerned in the remainder of the present chapter. We shall consider first the scope of the central bank's activity if its objectives are of a minor character, and then we shall examine what is meant by the stabilization of business activity, the various possible means of stabilization, and some of the extremely complex problems involved.

MINOR OBJECTIVES OF MONETARY POLICY

Protection of the Monetary Standard.—The role of the central bank as protector of the monetary standard is appropriate chiefly in countries which maintain metallic standards, and particularly in those countries which desire to observe the "rules of the game" of the automatic gold standard. In such a country, it is generally thought to be a prime function of the central bank to "protect the gold reserves" in order to insure the ready convertibility of hand-to-hand money and bank deposits. Should gold begin to flow out of the country, the central bank might well raise the discount rates to encourage an inflow of investment funds from abroad of sufficient volume to reverse the gold movement. Or, again, should the gold reserves be regarded as excessive in volume, the discount rates might be lowered to encourage the exportation of gold. In the period following the First World War, because of the existing maldistribution of gold, central banks gave much attention to the task of nullifying the effects which abnormal gold holdings and the perverse movements of gold would have tended to produce.

Stabilization of the Money Market.—A policy designed to stabilize the money market envisages the avoidance of undue fluctuations in interest rates of a seasonal or regional character, the elimination of undesirable fluctuations in foreign exchange rates, and the expansion and contraction of

bank reserves to meet the exigencies of the various phases of the business cycle.

Any pronounced fluctuations in the market rates of interest are thought to be unnecessary and undesirable to the extent that they result from the seasonal expansion and contraction of activity in various industries. If the spring, say, is a period of peak production in the country's industries, a period in which enterprisers must borrow large sums of money, there is no justification for a sharp rise in interest rates upon loans; and if another season is a period of slack operations, there is no good reason why interest rates should be allowed to fall to negligible proportions. The central bank has the capacity to provide additional credit in abundance in periods of peak production, and to drain off excess credit in periods of slack production; and its responsibility as stabilizer of the money market is fulfilled adequately only if its outpouring and absorption of credit are synchronized in such manner as to keep market rates from fluctuating violently. The central bank must also take steps to eliminate unreasonable geographical variations in interest rates. If rates are high in some sections of the country because of a dearth of funds, and low in other sections because of a plethora of funds, the central bank must use its powers to bring about a redistribution of funds and thereby to equalize interest rates. To the extent that regional rates of interest vary because of differences in risk, however, the central bank cannot be expected to promote equality.

For a country which maintains the gold standard, fluctuations in foreign exchange rates are likely to be accompanied by the inflow and outflow of gold; therefore the central bank's duty to prevent unnecessary fluctuations in rates is directly related to its duty of protecting the monetary standard. For a country operating upon a fiat standard, on the other hand, the prevention of undesirable variations in exchange rates is a matter independent of protection of the monetary standard; in such a country, because wide fluctuations in rates are not prevented by gold movements, the central bank must constantly engage its facilities to promote stability, and especially to avoid the violent shifts likely to result from flights of capital. In acting to stabilize foreign exchange rates, the central bank may buy and sell gold and foreign currencies. Thus if an extraordinary amount of foreign currency is being offered for sale in the market, so that it could not be sold at the going rates through the regular channels, the central bank may enter the market as buyer; and if an extraordinary demand for a certain foreign currency develops, the central bank may augment the supply by offering a portion or all of its holdings. Certain domestic operations may also be employed to affect foreign exchange rates. Thus the central bank may tighten internal credit conditions by raising its discount rates or by selling domestic securities in the open market; in this way, foreign funds may be attracted to the country, so that additional supplies of foreign

exchange may be provided and an upward pressure upon the foreign exchange rates may be relieved.

Finally, a program which has for its purpose the stabilization of the money market calls for the control of commercial bank reserves in accordance with the changing situation in the various phases of the business cycle. In times of crisis, the central bank must come to the rescue of the commercial banks by providing ample credit so that the latter may be able to meet extraordinary demands for money—so that, in other words, an economic crisis will not be the occasion of a banking panic. In periods of depression, the central bank must make credit “easy” in the belief that an expansion of industrial activity will result if an opportunity is given to enterprisers to obtain capital on favorable terms. In times of boom, the central bank must “put on the brakes” to prevent if possible all the disturbances and maladjustments which result from the spread of speculation, the skyrocketing of prices, and the multiplication of windfall profits.

Assistance to the Treasury.—The taxing, borrowing, and spending operations of a modern national government, because they involve such tremendous sums of money, would be likely to have extremely disturbing effects upon general business activity did not the central bank take proper action to offset them. Thus the surrender to the government of huge sums as taxes or as the proceeds of the sales of its obligations would tend to contract bank reserves severely, to tighten credit markedly, and to cause interest rates to soar; and the spending of huge sums would tend to have contrary effects. Hence the central bank must be vigilant to replenish bank reserves when they are being depleted by some types of government operations, and to absorb excess reserves when they are being expanded by other operations of the treasury.

In times when nations prepare for war, wage war, and rehabilitate themselves following wars, the central bank cannot be content merely to try to avoid the disturbing effects of government fiscal operations: its major goal is likely to be the granting of every possible assistance to the national government so that it may be able to fulfill its fundamental task. Other goals which may loom large in periods of peace and “normalcy” are likely to be relegated to a minor status if not completely ignored in critical war periods.

In the United States, for example, the federal reserve banks may give the Treasury substantial assistance in several ways. For one thing, they may deliberately maintain “easy money” conditions to keep rates of interest low so that the burden of interest charges on the federal debt may be held to a minimum. An “easy money” policy, moreover, provides ample funds for investment in government securities. In the second place, the reserve banks may support the government bond market if it becomes “soft” or “weak.” Should the prices of securities already outstanding fall below par, it would be necessary for the Treasury to pay higher rates on new issues.

Hence an increased cost of borrowing may be avoided by having the reserve banks buy heavily to arrest any fall in prices which threatens. As an alternative, the reserve banks may buy securities directly from the Treasury, thereby eliminating the latter's dependence upon the open market. In the third place, the federal reserve authorities may encourage investment in government securities by urging the commercial banks to purchase heavily for their own portfolios and to lend freely to their customers for investment; in this respect, the commercial banks may be protected by the assurance that the reserve banks stand ready to discount on liberal terms paper secured by government obligations. As a fourth means of assisting the federal government in its financial operations, the reserve authorities, to the extent that their powers permit, may curtail the volume of credit available for nongovernmental purposes. The placing of strict limits upon the use of credit for stock market speculation and for consumption purposes is a possible action of this character.

Aid to Foreign Governments and Central Banks.—At times the central bank may look beyond the immediate requirements of the domestic situation and adopt policies designed to aid foreign governments and foreign central banks to meet various kinds of financial problems. But aid to foreign governments and central banks is not altogether altruistic. The central bank, for example, might decide to assist a foreign country to establish and maintain, say, the gold standard because it believes that an international gold system would enable it better to protect the domestic monetary standard, would make the stabilization of foreign exchange rates an easier task, and would prevent such disturbances in the domestic money market as result from flights of capital.

In the 1920's especially, the spirit of cooperation among central banks grew rapidly, and there was much interchange of information, of advice, and of material aid. Historians of federal reserve policy believe, for example, that the "easy money" program of 1924 and 1927 was designed to prevent an inflow of gold to the United States which would have embarrassed foreign central banks in their efforts to re-establish and maintain the gold standard. In 1925, the federal reserve banks authorized the Bank of England to draw upon them to the amount of \$200,000,000 in gold should it be needed to support the gold standard re-established in Great Britain in that year. In subsequent years, assistance was extended by various arrangements to the central banks of Great Britain, Hungary, Germany, Belgium, Poland, and other countries.

STABILIZATION OF BUSINESS ACTIVITY

Some theorists believe that all that can be reasonably expected of the central bank is success in attaining the minor objectives we have just discussed; but others believe that the central bank can go much further than this—that it has within its grasp the power, by means of monetary policy,

to coordinate the far-flung elements of the economic system in such manner as to promote the permanent stability of business activity.

When we speak of the stabilization of business activity, we mean the continual full employment of the physical and human resources of the nation; we mean the avoidance of the idleness of resources which characterizes periods of depression, together with the elimination of the excesses of periods of boom; we mean, indeed, the constant enlargement of the output of industry, through the growth of the efficiency of capital and labor, and without periodical stoppages on account of "overproduction," "underconsumption," "oversaving," or whatever other cause may be advanced. "Full employment," however, does not mean that every able-bodied workman must be employed 60 or 72 hours per week, or that every factory must operate on 24-hour shifts seven days per week; it means, rather, that, given the standards which are accepted throughout industry, every able-bodied workman must be able to find employment, and that every industry, to the extent that it is properly planned and operated, must be able to find a market for its output. Thus a standard work week of five days of seven or eight hours each is perfectly compatible with the concept of full employment, as is the idleness or partial idleness of industries which, through improper planning, have been overdeveloped.

The desirability of stabilizing business activity, in the sense in which the term has just been defined, cannot be questioned, since the operation of industry at capacity and the full employment of all available labor would mean—except in time of war—the ultimate of prosperity, for it would necessarily follow that the goods produced would have to be relatively widely distributed. Such an objective is largely achieved in time of war, but because such large quantities of goods are used for destructive purposes and are not available for consumption in the ordinary way, true prosperity in the sense of higher planes of living and general well-being does not result.

The question before us, then, is whether the central bank, by the adoption of specific monetary policies, can guide the economic system to the achievement of full employment. Many believe that the goal of full employment may be attained through government ownership and operation of the tools of production, through close government supervision and planning of industrial operations, through direct price control, and through other means which require a substantial measure of regimentation. These possible means of industrial regimentation, however, are beyond the scope of our study; we want to know whether the central bank, in a milieu of free enterprise or almost-free enterprise, can set the stage for full employment through the exercise of the monetary powers which it already possesses, or perhaps through the exercise of monetary powers somewhat expanded.

A growing body of economists are convinced that the monetary policies of the central bank, if intelligently conceived and executed, can go a long

way in promoting the goal of stabilized business activity. They differ, however, with respect to the immediate objectives which, they believe, would produce full employment. Some think that the central bank's monetary policy would be properly conceived if it were designed merely to prevent drastic changes in the price level; others believe that the price level must be stabilized; others feel that the central bank must distinguish between the productive and the speculative use of money, and limit the expansion of the volume of money in accordance with that distinction; and still others believe that the efforts of the central bank must be designed to reduce money to a role of complete neutrality. These divergent ideas as to how full employment is to be achieved by monetary action we must proceed to examine.

Price Level Theories.—The attention of many monetary theorists is directed to the possibilities of controlling the price level because they recognize that pronounced changes in the price level go hand in hand with the swings of business activity through prosperity and depression. Experience clearly demonstrates that a rapid and continuous fall in the price level produces depression conditions—it intensifies economic maladjustments, increases defaults upon obligations and bankruptcies, closes factories, and greatly expands the ranks of the unemployed; and that a rapid and continuous rise in the price level produces a boom situation and thereby creates other maladjustments which in the past have inevitably led to crisis and collapse. Because the swings of the price level appear to be closely related to the swings of business activity, many economists believe that if the price level can be controlled the tempo of business activity will be brought under control at the same time.

The price level theories may be divided into two groups, those which call for the prevention of price inflation and deflation, and those which call for a full measure of price level stabilization. Economists who favor the former type of theory believe that a complete stabilization of the price level cannot be achieved, and that, in any case, it would not produce stable business activity if it were achieved; they believe, on the other hand, that a reasonable measure of stability in business activity can be had if enterprisers are merely assured that they will not encounter rapid and severe changes in the price level upward or downward.

Prevention of Inflation and Deflation.—The terms *inflation* and *deflation* are subject to almost innumerable interpretations, but, for our purposes, we may define inflation as a substantial rise in the general price level thought to be harmful to the general welfare, and deflation as a substantial fall in the general price level and also regarded as harmful. Whether a particular change in the price level, therefore, is to be described as inflation or deflation depends upon the attitude toward it which is taken by the people generally—and especially by the central bank if it is supposed to prevent inflation and deflation. Thus a rapid and continuous rise of the

general price level was thought to be a highly desirable objective in the early years of the Roosevelt Administration, and, indeed, a different word, *reflation*, was employed so that the harmful implications of "inflation" could be avoided.

If the central bank's monetary policy is designed simply to prevent inflation and deflation, it does not have to exercise control when only moderate changes in the price level in either direction take place, even though the net increase or decrease may be substantial over a long period of time. The objective, then, is to prevent those rapid and severe changes which, in the past, have been largely due to monetary causes, and to permit price variations which result from changes in the sources of raw materials, the increased or decreased efficiency of capital and labor, the introduction of new products, the swings of public fancy from one type of commodity to another, material variations in the supply of certain goods because of weather conditions, and the like.

The problem of inflation and deflation may be illustrated by reference to the situation which faced the United States following the launching of its national defense and war programs. Statesmen, businessmen, economists, and the public recognize the fact that wartime and postwar inflation works untold hardships, not only upon specific classes of the people but also upon the country as a whole in greatly increasing the costs of war and reconstruction. Yet, in time of war and reconstruction, the dangers of inflation are ever present. The huge expenditures of the federal government for equipment, supplies, and personnel place in the hands of the general public much purchasing power while, at the same time, the government, by its system of rationing and priorities, allocates to its own use ever-increasing proportions of the nation's resources, so that the area for consumer bidding is greatly circumscribed. In a word, the public finds itself with greater purchasing power than it ever possessed before at the very time that the supplies of consumption goods are severely curtailed. In the normal course of events, the competition of buyers in bidding for the scarce consumption goods would cause their prices to rise rapidly. And even when the government maintains a system of rigid price controls, the excess purchasing power is likely to spill over into "black markets," bidding up prices there to extraordinary heights, so that the over-all rise in prices is considerably greater than is indicated by the indexes of the prices prevailing in legitimate markets.

Stabilization of the Price Level.—A policy of preventing inflation and deflation would require the central bank to take action only to avoid substantial changes in the price level which are thought to be harmful, while a policy designed to provide full stability of the price level would require constant attention to prevent even minor changes contrary to the general objective.

The "stabilization of the price level" means different things to different

people. Some theorists, noting the fact that periods of rising prices have always been characterized by the expansion of business activity and the enlargement of the national income, believe that monetary policy should be designed to bring about a gently rising price level. In this way, it is said, a stimulus in the form of expanding profits would constantly encourage the acceleration of business operations. Such an objective, however, would not be compatible with the maintenance of the gold standard, unless other countries upon the standard were promoting a similar monetary policy. In the absence of a uniform international policy of this kind, the gold-standard country whose price level was gently rising would gradually come to find its export markets evaporating. If the country had a fiat standard, however, the depreciation of the external value of its monetary unit would tend to keep pace with the rising price level, so that it need suffer no difficulties in its export operations.

Other theorists believe that monetary policy should have for its objective a gently falling price level, for the reason that the discovery of new processes, the introduction of laborsaving devices, and other economies should lead to lower costs of production which, in turn, should make possible lower selling prices. By means of a continuous fall in selling prices, therefore, the gains of mass production would be enjoyed by the general public. While the conclusion expressed here seems to be a logical one, the possible depressive results of a falling price level—even one *gently* falling—cannot be overlooked. Some industries might not be able to reduce costs in the same proportions as others, and some might not be able to curtail costs at all. Organized labor, too, would not likely be content to enjoy its share of the expanded productivity of industry through lower prices, since increases in dollar-and-cents wage rates have always loomed so large in its negotiations.

Still other theorists think of "stabilization of the price level" as meaning the maintenance of the price level on an even keel at all times. If the price level in a period of full employment is designated as "100," then it should be kept at that point at all times; any variation should set the central bank to work to restore the "100" mark. The argument is advanced that an inflexible price level would make possible the precise planning of productive activity by enterprisers, who would have full assurance as to the stability of costs and selling prices. A fact often disregarded, however, is that an inflexible price *average* does not necessarily mean the inflexibility of the prices which make up the average.

Difficulties of Price Level Control.—Those who advocate the placing of responsibility upon the central bank to control the price level realize that many difficulties must be removed before their objective can be realized; critics of the proposals for price level control believe that the difficulties are insurmountable.

In the first place, it is necessary to decide what price level is to be controlled—is it to be the general price level, the wholesale price level, the

"sensitive" average of the wholesale prices of a few commodities, or the cost-of-living price level? Cogent reasons may be advanced for the selection of any one of these, and cogent arguments may be offered in opposition. A general price level, as measured by index numbers such as those of Dr. Carl Snyder, would seem to be the most adequate measure of the purchasing power of the dollar in all capacities; but a general price level tends to be sluggish, concealing as it does significant movements in the series of which it is composed. A cost-of-living price level may be selected as the one to be controlled, since consumption is the end of all economic activity, yet such a price level is lacking in sensitivity to cyclical developments. The "sensitive" price level of a few commodities at wholesale is quickly responsive in reflecting changes in economic conditions, but its control would leave out of account the prices of thousands of other commodities, services, and property rights. Finally, the wholesale price level, too, is sensitive in indicating cyclical developments, but wholesale prices in many instances are far removed from other prevailing price schedules, including the retail prices of the same commodities.

When the decision has been made as to what price level is to be controlled, a second difficulty is faced: the construction of a series of index numbers which adequately measure that price level. Here the problems are largely technical in character; they were touched upon in Chapter 23, where we discussed the measurement of the value of money. At all events, it is to be remembered that substantial differences of opinion are entertained as to the inclusion and exclusion of specific prices, the assignment of weights, the method of averaging, and so on. Problems, too, arise as to the speed with which the price data can be assembled and averaged, for if price changes have been under way for several weeks or months before the central bank becomes aware of that fact, its belated action to reverse the changes is likely to be the source of much difficulty. Furthermore, particular groups of the population may contend—perhaps without justification—that the method of constructing the index numbers is such as to discriminate against them, so that the policy of price level control may be brought under general suspicion.⁴

A third difficulty which must be met is the reconciliation of variations in individual prices with the stabilization of the average of those prices. Nobody who advocates the stabilization of the price level demands the separate stabilization of each price which is a component of the price level. It is recognized that individual prices must be free to change in accordance with numerous factors, such as changes in production techniques and increases and decreases in demand. Yet it is the unequal changes of specific

⁴ Thus in the early months of 1944, the so-called Thomas-Meany report criticizing the use of the cost-of-living index of the United States Bureau of Labor Statistics in connection with the wage regulations of the National War Labor Board gained wide attention. It is of interest to mention that in 1945 the title of the bureau's index was changed to "Consumers' Price Index for Moderate Income Families in Large Cities."

prices, and not so much the movements of an average, which are the source of many difficulties. If, for example, the price level stands at 100 at the time control is introduced, and if half the prices composing the index subsequently rise 5 per cent and the remaining half fall 5 per cent, the index remains at 100, but nobody would seriously contend that conditions had not changed. Or suppose that the prices of a few goods rise substantially because of a severe shortage of supply. This advance would tend to cause the whole index to rise, but any action of the central bank to prevent the movement would tend to depress the prices of all other goods and would be likely to lead to difficulties in the industries producing them.

Finally, we must mention the possibility that the tools of monetary policy in the hands of the central bank may be quite inadequate to produce the results desired. The nature of these tools and their uses will be discussed in the two chapters which follow, but at this point we may note that misgivings arise as to whether specific actions of the central bank, such as the raising and lowering of discount rates, open-market operations, and changes in reserve requirements, would have an effect upon the volume of money of the degree expected; and as to whether the central bank would be able to measure variations in the transactions velocity of money and in the volume of trade accurately enough and quickly enough to offset them by changes in the volume of money. Stated in terms of the transactions equation of exchange, the problem is whether P can be stabilized through the manipulation of M , when V and T are largely outside the control of the central bank.

Price Level Control and the Board of Governors.—Most of those who advocate a program of price level stabilization for the United States would expect to depend upon the Board of Governors of the Federal Reserve System to exercise the control. Thus the Strong bill, which was introduced in Congress in 1926, provided that "all of the powers of the Federal Reserve System shall be used for promoting stability in the price level"; and the Goldsborough bill of 1932 would have required the Board of Governors to use its powers to restore and maintain the 1926 price level. Yet the Board of Governors has long been skeptical of the desirability of stabilization and of its powers to promote it. As recently as March 13, 1939, the board published the following statement:

Experience has shown . . . that (1) prices cannot be controlled by changes in the amount and cost of money; (2) the Board's control of the amount of money is not complete and cannot be made complete; (3) a steady average of prices does not necessarily result in lasting prosperity; and (4) a steady level of average prices is not nearly as important to the people as a fair relationship between the prices of the commodities which they produce and those which they must buy.

Steady prices and lasting prosperity cannot be brought about by action of

the Federal Reserve System alone, because they are affected by many factors beyond the control of the Federal Reserve System.⁵

A statement of this kind, however, need not discourage those who favor price level control and who favor the exercise of control by the Board of Governors. Doubtless the board would not like to be saddled by Congress with the specific responsibility of controlling the price level, lest perhaps any failure on its part would discredit the Federal Reserve System and undermine its own prestige. On the other hand, if public sentiment in favor of price level stabilization became sufficiently strong to result in the adoption of directive legislation by Congress, the Board of Governors could not well reject the mandate laid down.

Productive and Speculative Use of Money.—From the viewpoint of some economists, the stabilization of business activity is to be achieved, not by controlling the price level, but by controlling the use to which money, and particularly newly created money, is put. In their minds, the problems involved are qualitative rather than quantitative ones—they involve not the total quantity of money available in the country but its use in productive and speculative operations. According to this viewpoint, it should be the responsibility of the central bank to make abundant credit available for purposes which can be labeled productive and to restrict severely the quantity of credit to be made available for speculative operations. To the extent that credit is advanced to businessmen to enable them to acquire additional facilities, to hire additional employees, and to move goods to the market, the granting of loans can have only good effects upon economic society; hence the central bank need have no hesitation in placing ample credit at the disposal of enterprisers for these purposes. On the other hand, the use of money for speculation, as in the accumulation of inventories beyond normal levels, can be of little benefit and may be the source of much harm; therefore, credit for such a purpose should be severely curtailed.

A central bank charged with the responsibility of extending liberal credit for productive purposes and restricting its use for speculative purposes would still be interested in watching for changes in indexes of the price level; substantial advances, for example, would be indicative of a widespread use of money for speculation. Its primary attention, however, would be directed to indexes showing variations in the volume of industrial production, in freight-car loadings, in department store sales, in activity in the construction industry, in the size of inventories, in the volume of employment and unemployment, and in the size of factory pay rolls.

It is doubtful, however, whether a workable distinction can be made between the productive and the speculative use of money, and whether specific grants of credit can be easily classified as for the one or the other.

⁵ *Federal Reserve Bulletin*, April, 1939, p. 255.

As long as the commercial banks retain the power to create money in the form of demand deposits, the capacity to distinguish between productive and speculative uses appears to lie with them rather than with the central bank; and the commercial banker is not likely to reject applications for loans presented by borrowers of excellent credit standing, even though he knows or suspects that the funds requested are to be used in speculative transactions.

Furthermore, credit originally created for productive purposes may subsequently be used for speculative purposes before it is extinguished. In this regard, one must remember that commercial banks create credit when they purchase securities as well as when they make direct loans to customers. Thus, for example, a corporation may issue bonds for the erection of additional plant facilities, and the banks in purchasing the bonds may create credit for what is presumably a productive purpose. But the new credit remains in existence as long as the bonds are held within the commercial banking system. After the credit is used by the borrowing corporation, further control of its use is lost.

Neutral Money.—The exponents of neutral money as a means of stabilizing business activity have for their goal the elimination of the influence exerted upon production and consumption by the creation and destruction of money and by the hoarding and dishoarding of money. Their objective, then, would be to remove both the depressive effects of the hoarding and destruction of money which have characterized periods of crisis and depression, and the expansive effects of dishoarding and creation of new money which have characterized periods of recovery and prosperity. In terms of the income theory of the value of money, they would manage the supply of money, after full employment had been reached, in such manner that saving and investment would always be in equilibrium. Neutral money would not mean a stable price level, for prices would be free to vary in accordance with changes in industrial efficiency and with the switching of consumers' preferences among various kinds of goods.

A policy of neutral money would require constant management of the available quantity of money by the central bank to avoid or offset all disturbances in the flow of money income. That the central bank's control of the quantity of money might be complete, it would be necessary to deprive the commercial banks of their capacity to create demand deposit money and to destroy it; in a word, the commercial banks would retain only the capacity to lend money left with them as the true savings of depositors. The central bank would have to adjust the quantity of money to offset changes in the circular or income velocity of money, such as are produced by hoarding and dishoarding and by the extension and reduction of roundabout methods of production (the lengthening and shortening of the period of production). Further adjustments in the quantity of money would have to be made for changes in population; if, for example, the output

of industry were expanded through the growth of population, new money would have to be provided so that the additional goods could be bought by the new wage earners. No change in the quantity of money would be required, on the other hand, when the output of industry expands because of increased productive efficiency, for lower prices should make the quantity of money already available sufficient to take the expanded output off the market.

The proposal for a program of neutral money appears to be sound, for, as we saw in our discussion of the income theory, money exerts no depressive or expansive pressure upon profit expectations, costs, prices, and output when saving and investment are in equilibrium. But here, as always, questions arise as to the capacity of the central bank to fulfill the responsibilities which would be placed upon it. Great difficulty would be faced in determining whether changes in output are due to changes in population or to increased or decreased efficiency in industry, in measuring the extension or reduction of roundabout processes in industry, and even in discovering the volume of hoarding and dishoarding. Problems, too, would arise with respect to the capacity of the central bank to take action with sufficient speed and effectiveness to offset whatever developments toward disequilibrium it might discover. Furthermore, as the result of a policy of neutral money would be to stabilize money incomes, the program would appear to run counter to the aspirations of those groups—particularly organized labor—which are convinced that they must share in the benefits of increased productivity through expanded money incomes.

Chapter 27

MONETARY POLICY OF THE FEDERAL RESERVE SYSTEM

The Position of the Federal Reserve System

A central banking institution, such as the Federal Reserve System of the United States, occupies an important position in the control of monetary expansion and contraction, chiefly because of its capacity to increase and diminish the primary reserves of the commercial banking system. In an earlier chapter, we saw that the commercial bankers base their decisions to grant new loans and to purchase investment securities upon the volume of their primary reserves. If they have only sufficient reserves to satisfy legal requirements and other needs, they are unable to extend new loans or to purchase additional securities; but if they have reserves in excess of those required, the excess may be loaned or invested. Since, therefore, the federal reserve banks are reservoirs from which new primary reserves may be obtained, and into which existing reserves may vanish, their power to affect the loan and investment policies of the commercial banks may be readily understood.¹

In taking steps to control the expansion and contraction of the volume money, the authorities of the Federal Reserve System may employ both quantitative and qualitative instruments. The principal quantitative devices of the Federal Reserve System are the following: the power to change the rates charged member banks and other borrowers upon rediscounts and advances; the authority to buy and sell securities in the open market; and the power to change the reserve requirements of member banks. The qualitative powers, which concern the use to which money is put, are basically two: the power to fix margin requirements upon loans secured by stock and bond collateral, and the authority to take "direct action" in connection with the operations of individual member banks. A third qualitative device—the regulation of the extension of credit for consumption purposes—was originated in 1941 and has been continued to the present time. Presumably, however, it is to be retained only temporarily.

¹ A review of Chapter 15, and particularly the sections therein which treat of the "factors of increase" and the "factors of decrease" (pp. 229-237), should contribute at this time to a clear grasp of the materials discussed in the present chapter and in that following.

AUTHORITY OF THE BOARD OF GOVERNORS

It is important, at the outset, to emphasize that most of the powers of monetary policy of the Federal Reserve System are concentrated in the hands of the Board of Governors, although, for administrative reasons, some of them must be shared with the twelve reserve banks and their branches.

The discount rates are fixed by the individual reserve banks, but the board has the authority, in the terminology of the law, "to review and determine" the rates. "To review and determine" means that the board may reject any rates proposed by the reserve banks, and, indeed, it may substitute rates of its own choice. The reserve banks must announce their discount rates at least every two weeks, but the board may require a more frequent announcement. Finally, in this regard, it is the board which determines within certain limits the character of the notes, drafts, and other kinds of commercial paper which the reserve banks may discount for the member banks.

The power of the board to determine the open-market operations of the federal reserve banks is obviously shared with the officials of the latter, since the board contributes only seven members to the twelve-member Federal Open Market Committee. Obvious also is the fact, however, that if the members of the Board of Governors vote solidly, they may override any policy sponsored by the five representatives of the reserve banks. The board is empowered by law, moreover, to set down the rules and regulations according to which the Federal Open Market Committee exercises its functions.

The power to change the reserve requirements of member banks and all the qualitative powers listed above are exclusively held by the Board of Governors. This does not mean that other reserve officials are excluded from offering advice and criticism. And, of course, some of the powers can be used effectively only with the full cooperation and assistance of the federal reserve banks. In the enforcement of policies of "direct action," for example, the detailed work of observing how member banks are employing their money-creating facilities must necessarily be undertaken by the reserve banks.

Changes in Discount Rates

THEORY OF RATE MANIPULATION

For many decades before the establishment of the Federal Reserve System, students of banking theory and practice looked upon changes in discount rates as the most effective instrument in the possession of a central bank for the control of monetary expansion and contraction. The manipulation of discount rates had long been the principal means used by the Bank of England and other central banks in the control of the general credit situation. Thus the framers of the Federal Reserve Act, in placing a similar instrument in the hands of the federal reserve authorities, anticipated that

it could be employed effectively in regulating the volume of money in the United States.

As conceived by the founders of the Federal Reserve System, a discount rate was not to be a "penalty rate," that is, a rate placed so high as to discourage borrowing except in times of emergency. Instead the rate, in the phraseology of the act, was to be set "with a view of accommodating commerce and business." Member banks, therefore, were expected to call upon the reserve banks frequently to obtain funds to be used for loans to their customers. Thus a member bank having only sufficient reserves to satisfy the legal requirements could meet requests for additional loans by rediscounting the borrowers' paper with the reserve bank of its district.

In these circumstances, the magnitude of the discount rates charged by the federal reserve banks might either encourage or discourage member bank borrowing. Should the reserve authorities believe the outstanding volume of money to be excessive, they might attempt to correct the situation by raising the rates. Since the member bank would have to pay a higher rate in borrowing from the reserve bank, it would find it necessary, in order to preserve its customary profit margin, to charge its customers higher rates on its loans to them. The general effect would thus be to discourage borrowing upon the part of the general public. On the other hand, should the reserve authorities desire to encourage monetary expansion, they could reduce the discount rates, making the cost of new reserves lower to member banks which, in turn, could lend to their customers at lower rates.

SHORTCOMINGS OF RATE MANIPULATION

The manipulation of discount rates as a means of monetary management has been of much less importance than was anticipated. Some of the reasons for the weakness of rate manipulation may be discussed briefly. Changes in discount rates are not significant—except, possibly, from a psychological standpoint—when member banks have no need to borrow from the federal reserve banks. Even if the prevailing discount rates were as high as 12 or 15 per cent, they would be of slight concern to a member bank which did not have to borrow. Yet member banks have had, at various times and for long periods of time, huge volumes of excess reserves on the basis of which they could extend loans to their customers at relatively low rates of interest, regardless of the height to which the reserve bank discount rates might go.

Low rates of discount prevailing at the federal reserve banks are not sufficient in themselves to stimulate business activity during a period of depression. The cost of borrowed funds is only one factor—and often a minor one—taken into consideration by businessmen when they come to decisions whether or not to expand their operations. On the other hand, extraordinarily high discount rates are not immediately effective in checking a boom. Here, again, the cost of borrowed funds may be a negligible

factor when all costs involved in production are analyzed. If prices are rising rapidly, businessmen may expect very easily to cover in their gross profit margin the increased cost of borrowed money.

Again, member banks generally have not borrowed from the federal reserve banks in order to relend, but rather to replenish primary reserves which had been depleted because of withdrawals resulting from loans already granted. Thus the rates paid on rediscounts and advances in replenishing reserves have little effect upon the rates already charged to the customers of the borrowing banks.

Finally, member banks dislike to borrow from the federal reserve banks, and when circumstances make borrowing necessary, they are anxious to repay the loans as quickly as possible. It is often said that a tradition against borrowing has established itself in the minds of commercial bankers in the United States—a tradition founded upon the idea that borrowing is a confession of weakness. In certain respects, the growth of the tradition has been encouraged by the federal reserve authorities. At all events, it means that member banks are likely to avoid negotiating loans at the reserve banks even when they could borrow there at low rates of discount and relend to their customers at higher rates.

FEDERAL RESERVE RATE POLICY

Before the entry of the United States into the First World War, the discount rates charged by the reserve banks were of little significance, because most member banks had no need of borrowing. The inflow of gold received as payment for our huge volume of exports to the warring nations of Europe and the reduction of legal reserve requirements through the adoption of the Federal Reserve Act gave the member banks ample funds for lending and investment. The average daily rediscounts of the reserve banks in April, 1917, amounted to only \$25,000,000.

During the war, and for most of the year 1919, the discount policy of the reserve banks was designed to aid the Treasury in borrowing billions of dollars for war expenditures. The discount rates on "war paper"—that secured by Liberty and Victory bonds—were generally slightly less than the coupon rates of the bonds themselves. Thus both member and nonmember banks could lend liberally to their customers on the security of government bonds at a rate equal to the coupon rate, and then rediscount the customers' paper with the reserve banks at a slightly lower rate—the differential being large enough to cover at least the clerical costs of the operation.

Until 1921, the federal reserve banks varied their discount rates according to the maturity and the character of the paper offered for rediscount. but as this policy made for a complex rate structure, it was discontinued in that year.

By an amendment to the Federal Reserve Act adopted in 1920, the reserve banks were authorized to graduate the rates charged to each member

bank according to the volume of its borrowings. This arrangement was designed to discourage member banks from borrowing more than their "fair share" of the credit available at the reserve banks. Four of the reserve banks—those of Kansas City, Dallas, Atlanta, and St. Louis—introduced graduated schedules and maintained them for about a year, but the policy was so severely criticized that it was discontinued.

The use of discount rate manipulation as an instrument of monetary policy before 1933 was probably subject to more criticism than commendation. During the year 1920, rates were raised to the highest level in the history of the system—as high as 6 per cent at some reserve banks and 7 per cent at others—to stem the expansion of credit at a time when commodity prices had risen to more than twice their prewar level, and when bank credit was being widely used for speculation in securities and commodities. In the middle of the year occurred a sharp break in prices and in industrial production, both of which continued to fall through most of the year 1921. Although many groups were inclined to hold the reserve authorities responsible for the break in prices and production, their criticism was probably unjustified as the depression of that period was world wide in scope.

Many critics of federal reserve policy believe that the reserve banks deliberately held the discount rates at low levels in 1924 and 1927 to assist Great Britain and other countries to resume and maintain the gold standard;² and they allege that the "easy" money situation of 1927 contributed strongly to the stock market boom of 1928 and 1929. Whether or not the charges are justified, it is true that the reserve banks were slow in raising their rates even when the extraordinary character of the speculative boom should have been clearly recognized. Eight of the banks raised their rates—which had been $3\frac{1}{2}$ per cent at all the banks at the end of 1927—to 5 per cent in July and August, 1928, and four did not reach 5 per cent until March and May, 1929. Apparently the action was too long delayed to be effective in checking the boom before it got out of hand. Following the crash, the discount rates were progressively lowered throughout the system to enable the commercial banks to borrow upon advantageous terms in order to place themselves in a state of greater liquidity.

When Great Britain suspended the gold standard in September, 1931, the reserve banks, to discourage the exportation of gold, once again raised their rates; but with the restoration of calmness following the banking holiday of 1933, the rates were again lowered and have since been maintained at the lowest levels in the history of the Federal Reserve System. Rates as low as 1 or $1\frac{1}{2}$ per cent per annum on certain types of advances have come to be accepted as a matter of course; indeed, in October, 1942, a rate of .5 per cent was announced at all the reserve banks upon ninety-day

² It may be argued, however, that the low-rate policy was justified by internal conditions. See, for example, Harold L. Reed, *Federal Reserve Policy, 1921-1930* (New York: McGraw-Hill Book Company, Inc., 1930), pp. 124ff.

advances secured by obligations of the federal government maturing or callable within one year. After 1933 and until the launching of our program of preparation for war, however, federal reserve discount rates were of little significance, because most of the commercial banks were so amply supplied with reserves that there was little prospect of their having to apply to the reserve banks for advances. Between July, 1934, and September, 1939, when the Second World War got under way, the average daily discounts on the books of the twelve reserve banks combined did not exceed \$25,000,000 in any month.

Since 1939, the federal reserve rate structure has been much more significant than it was in the preceding period. This has been true even though only a few changes in rates have been put into effect in recent years, and even though the volume of advances granted by the reserve banks has remained small or, at the most, moderate. The extremely low rates maintained in effect during the war years assured the commercial banks of the availability of additional reserves upon very favorable terms; thus the commercial banks were encouraged to lend liberally for war production and to invest heavily in government securities without paying too much attention to their current reserve position. Such encouragement was thought necessary in view of the tremendous decline in the volume of excess reserves which took place during the war period, for the continual increase of hand-to-hand money in circulation deprived member banks of reserves and the vast expansion in demand deposits caused a shift of reserves from the "excess" classification to the "required" classification. With the cessation of hostilities, and the substantial decline in the need of the Treasury for further borrowing, the federal reserve authorities began to think in terms of "tightening" the rate structure. They were especially dissatisfied with the rates which continued to prompt the commercial banks to add to their portfolios of government securities, for they came to feel that the volume of demand deposits had already been too greatly expanded by commercial bank holdings of government obligations. Accordingly, in the spring of 1946, the federal reserve banks, with the strong approval of the Board of Governors, discontinued the rate of .5 per cent per annum upon advances to member banks secured by federal obligations maturing or callable within one year; in the same period, the reserve banks abolished a preferential rate of 1 per cent per annum which had been in effect upon advances to nonmember banks secured by federal obligations.

Open-Market Operations

THEORY OF OPEN-MARKET OPERATIONS

The open-market buying and selling of securities of the federal government by the federal reserve banks are effective as an instrument of monetary

policy because they bring about quantitative changes in the primary reserves of the commercial banking system. If the federal reserve authorities want to promote an expansion in the outstanding volume of money, they may buy government securities in the open market; and if they believe that monetary contraction is desirable, they may sell a portion of their holdings.

The purchase and sale of securities by the reserve banks, it should be noted, affect commercial bank reserves whether they are maintained as balances at the reserve banks, whether they are held as balances with correspondent banks, or whether they are kept as hand-to-hand money in the vaults of individual banks. Consider the purchase of securities. The reserve banks pay for them by checks drawn upon themselves payable to the sellers. The sellers may be individuals or banking institutions. If the former, they deposit the checks received at their banks, and the banks send them to the reserve banks for payment. If banks are the sellers, they likewise present the checks for payment. The proceeds of the checks may be deposited in reserve accounts at the reserve banks, or with correspondent banks, or the reserve banks may be asked to send shipments of hand-to-hand money to the payee banks. In any case, the reserves of the commercial banks are increased, and the expanded reserves enable them to extend further loans and to make additional investments.

When the reserve banks sell securities in the open market, the buyers must make payment. If the buyers are private individuals, they normally draw checks on their deposit accounts which are presented by the reserve banks to the drawee banks for payment; if the buyers are banks, cashiers' checks, treasurers' checks, or exchange drafts may be used, but they too are presented by the reserve banks for payment. The drawee banks may make payment upon all checks by having their accounts at the reserve banks reduced, by drawing drafts upon their correspondent banks payable to the reserve banks, or by sending hand-to-hand money. In any case, their primary reserves are reduced—and the reduction curtails their capacity to make new loans and investments; it may, indeed, force them to call in loans already made, to sell investment securities already held, or to borrow from the reserve banks or from correspondent banks.

LIMITATIONS UPON OPEN-MARKET OPERATIONS

The capacity of the federal reserve banks to expand and contract the reserves of the commercial banks by way of open-market operations is subject to certain limitations. In ordinary circumstances, little attention is paid to the limits of expansion, for the great resources of the reserve banks usually insure their capacity to expand reserves far beyond what is needed; nevertheless, the tremendous need of additional reserves occasioned by our operations during the period of the Second World War showed clearly that the power to create reserves is by no means unlimited. However that may be, students of banking realize that obstacles to expansion are of a legal char-

acter, and, as such, they may be easily removed in times of emergency by Congress and the President. Limitations upon contraction are of an economic character, on the other hand, so that they cannot be eradicated by the action of a legislative body. Hence the limitations upon contraction far surpass in importance those which involve expansion.

With respect to the expansion of reserves through open-market purchases of securities, the federal reserve banks find their chief limitation in the reserve requirements to which they are subject. If the reserve banks buy \$100,000,000 of government securities, and if, as we would expect, the reserve balances of the commercial banks increase by the same amount, the reserve banks must allocate \$25,000,000 of gold certificates as reserves against the new balances. If the commercial banks proceed to withdraw their new balances in hand-to-hand money, then the reserve banks, although relieved of the reserve requirement just mentioned, must provide a reserve of equal amount in gold certificates plus \$75,000,000 of collateral consisting of gold certificates, commercial paper, or government bonds against the federal reserve notes they would issue. But the Board of Governors has the authority to suspend reserve requirements, and, as was mentioned above, Congress, with the approval of the President, may remove or reduce legal obstacles of this kind. Another limitation upon open-market buying which might have been cited some years ago—but which sounds rather fantastic today—is the possibility of a market shortage in the kinds of securities eligible for purchase by the reserve banks. But even when we recognize such a possibility, extremely remote though it may seem, we can say, once again, that the obstacle could easily be removed by legislation—legislation, in this instance, permitting the reserve banks to buy classes of securities not now eligible.

Turning to the matter of contraction, we immediately recognize the fact that the maximum amount by which the reserve banks may shrink commercial bank reserves through open-market sales is limited by their total holdings of government securities. Yet for long periods beginning in the summer of 1935, and continuing as late as the summer of 1942, the sale of all the government securities held by the reserve banks would have been insufficient to wipe out the excess reserves of member banks—to say nothing of encroaching upon required reserves to force a contraction of bank credit. Indeed, at various times in those years, as little as one third of member bank excess reserves could have been eliminated by the sale of the reserve banks' entire holdings of securities. It is to be remembered, moreover, that the "excess reserves" mentioned here refer only to the reserves of member banks on deposit at the reserve banks in excess of legal requirements, and do not include additional reserves held by member banks as vault cash and as deposits with correspondent banks, nor do they include the excess reserves of nonmember banks. But wars change many things,

and the vast wartime expansion in reserve bank holdings of government securities has overcome, at least temporarily, the limitation here described.

A second limitation upon open-market sales as a means of monetary contraction is present when the policy of the reserve authorities is designed to aid the Treasury in its financial operations. This limitation came into prominence with the inauguration of the Treasury's program of deficit financing in the early 1930's, and it was all the more powerful during the period in which the Treasury was borrowing huge sums to finance the war program. In brief, the reserve banks cannot sell securities in the open market to produce monetary contraction or to obstruct monetary expansion if the sales result in a serious decline in the market prices of government bonds—which, of course, is the normal tendency when the sales are of a substantial volume. The Treasury could not tolerate such a threat to its objective of continuing to borrow at low rates of interest. As a matter of fact, the reserve banks may find it necessary to buy substantial blocks of government securities to support the market when it shows signs of weakness. Thus commercial bank reserves may be expanded because of the exigencies of the government securities market at the very time that the monetary situation clearly calls for their contraction.

Finally, open-market sales have been limited at times as an instrument of monetary policy, for the reason that government securities comprise the principal earning assets of the federal reserve banks. Because the interest earned upon rediscounts and advances now represents only a minor source of income, and because the fees and charges levied by the reserve banks for special services are ordinarily only large enough to cover the costs of the services, interest earned upon government securities must provide a major share of the income of the reserve banks with which they may meet administrative expenses and dividend requirements. Regardless, therefore, of the acuteness of a need of monetary contraction through open-market sales, the reserve banks, when their security holdings are moderate in volume, can scarcely be expected to undermine their principal source of income by drastically reducing such holdings. Here again, however, the wartime expansion of the security portfolios of the reserve banks has, for the present, obviated this limitation.

OPEN-MARKET POLICY

Open-Market Policy before 1939.—In the period from 1914 to 1922, the federal reserve banks bought government securities in the open market chiefly to provide themselves with assets whose earnings enabled them to pay operating expenses and to provide dividends for the stockholding member banks. Indeed, it may be said that little attention was given to the prospects of planning open-market transactions with the purpose of controlling the outstanding volume of money. Evidence of that lack of attention is found in the fact that each reserve bank decided independently the char-

acter of its open-market operations, so that there was no coordination in buying and selling.

It was observed, however, that the purchase of securities by the reserve banks tended to reduce the borrowings of member banks at the Federal Reserve Bank of New York. Because the securities were bought in the New York market, the member banks in that district obtained funds which they used to pay off their indebtedness. Such a state of affairs was intolerable for the Reserve Bank of New York. Because uncoordinated buying and selling also disturbed the government bond market and thus interfered with Treasury financing, the Treasury encouraged the reserve banks, in 1922, to establish an "open-market committee" to synchronize purchases and sales. Though the committee and its early successors³ were not always successful in reaching their objectives, open-market operations thereafter were better managed.

At various times during the next few years, open-market buying and selling were employed as an instrument of monetary policy, not usually independently, but "to make the discount rate effective," that is, to expand and contract the reserves of member banks to enable them to repay their indebtedness at the reserve banks or to force them to borrow there. Thus in 1923, 1925, and 1928, the reserve banks sold securities and raised their discount rates to restrict the expansion of bank credit; and in 1924 and 1927, they purchased securities and lowered rates in furtherance of the "easy" money policy of those years.

Following the stock market crash, the reserve banks bought federal securities in large volumes for several years to enable the commercial banking system to increase its liquidity—a liquidity made necessary by the external drain of gold and the extraordinary demand for hand-to-hand money for internal hoarding. The average daily holdings of the reserve banks increased from \$154,000,000 in October, 1929, to \$2,437,000,000 in November, 1933.

For several years after 1933, the reserve authorities made virtually no use of their open-market powers, for they realized the inadequacy of open-market sales as a means of controlling the enormous excess reserves of the commercial banks. Thus their portfolios of government securities remained almost stationary at approximately \$2,430,000,000 from November, 1933, to April, 1937. In the latter month, the reserve banks bought approximately \$100,000,000 of government securities in an effort to counteract the economic "recession" getting under way at that time.

Open-Market Policy since 1939.—An analysis of the open-market policy of the federal reserve authorities in the period from the outbreak of war in September, 1939, to its close leads to the conclusion that support of the government security market was the principal objective in mind. Support of the market was a major consideration in the fall of 1939 and in December.

³ See above, p. 333.

1941. Serious weaknesses in government security prices developed following the declarations of war in 1939, and the reserve banks in the closing months of that year bought approximately \$473,000,000 of government obligations. The strength of the market in the following year—except in May—enabled the reserve banks to sell heavily, and they subsequently maintained their portfolios almost uniformly at \$2,184,000,000 until December, 1941. Renewed weakness in the government security market which developed after the attack upon Pearl Harbor led the reserve banks to purchase approximately \$70,000,000 of government obligations in December, 1941.

From the beginning of 1942, open-market operations were reinstated as a major instrument of federal reserve monetary policy. In that year, the reserve banks increased their net holdings of federal obligations by almost \$4,000,000,000, with most of the purchases concentrated in the last quarter of the year. Thereafter, enormous purchases by the reserve banks became commonplace; in 1943, their net holdings of government obligations increased by \$5,354,000,000, in 1944, by \$7,303,000,000, and in 1945, by \$5,416,000,000. Support for the government market was provided particularly at those times when new treasury offerings of securities caused weakness in the prices of securities already outstanding. At other times, purchases were undertaken to support the government market, as one might say, in an indirect manner—by protecting the reserve position of the commercial banks. In a word, the reserve authorities were solicitous to supply the commercial banks with excess reserves, or to prevent them from losing excess reserves, so that they might be encouraged to buy large volumes of government securities and to retain within their portfolios securities previously purchased. Reserve protection through the purchase of securities by the reserve banks was of special importance in periods of heavy tax collections, as in March, for the clearing of taxpayers' checks caused serious inroads upon commercial bank reserve balances.

A significant innovation in open-market policy respecting treasury securities was announced by the federal reserve authorities in April, 1942: the reserve banks stated their willingness to buy, whenever offered by holders, an unlimited quantity of treasury bills at a standing discount rate of three eighths of 1 per cent per annum. The new policy was designed to give the commercial banks a means by which they might better manage their reserves, for they were enabled to convert at will their holdings of treasury bills into new primary reserves at the reserve banks. The innovation, at the same time, was expected to assist the Treasury in its financial operations both by broadening the market for bills, which had hitherto been purchased almost exclusively by the New York banks, and by keeping down the rate of discount on such bills.

Following the end of hostilities, federal reserve holdings of government securities continued to expand for several months; in fact, they reached the highest level in the history of the system in the closing days of

1945. In the first three months of 1946, the reserve banks were able to reduce their holdings by approximately \$2,000,000,000 because of the return flow of hand-to-hand money from circulation and the reduction of the Treasury's deposit balance held with them. Nevertheless, the reduction in holdings turned out to be short-lived, for the Treasury's policy of using a substantial amount of its huge cash balance to retire outstanding obligations, beginning in March, 1946, made it necessary for the reserve banks to purchase securities in the open market to supply the commercial banks with additional reserves. Increased reserves were needed because the Treasury's debt retirement program—so far as federal obligations held by nonbank investors were involved—caused a shift from war loan accounts requiring no reserves to private accounts against which full reserves had to be maintained. In consequence, federal reserve bank holdings of federal obligations, by the end of September, 1946, approximated the high level that had been reached at the close of the preceding year.

Changes in Reserve Requirements

LEGAL PROVISIONS

From the time of the adoption of the Federal Reserve Act until 1936, only one change in the reserve requirements applicable to member banks took place—that introduced by the amendment of June 21, 1917. The original legislation of 1913 permitted the member banks to keep a portion of their required reserves in their own vaults or on deposit with correspondent banks. This arrangement was designed to permit a gradual change from the old system to the new. The amendment of 1917 speeded up the process of transition by providing that the member banks keep all their required reserves on deposit with the reserve banks, but at the same time the amendment authorized a reduction in the size of required reserves.

The banking difficulties of the early 1930's brought into question the reasonableness of reserve requirements fixed by law, and members of Congress were persuaded to recognize the advantages of some degree of flexibility. Accordingly, the "Inflation Amendment" of the Agricultural Adjustment Act of May 12, 1933, authorized the Board of Governors to declare the existence of emergencies induced "by reason of credit expansion," and to change reserve requirements during the period of any such emergency. The new power, however, could be used only with the approval of the President.

As the importation of gold continued to swell excess reserves during the year 1934 and in the early months of 1935, Congress, in the Banking Act of 1935, removed the restrictions mentioned above, and placed the authority to change reserve requirements squarely in the hands of the Board of Governors. The board's power, however, remained subject to two limitations: it could not fix requirements below those set by the amendment of 1917;

and it could not raise requirements beyond a doubling of those established in 1917.

EFFECTIVENESS OF CHANGES

Changes in the reserve requirements applicable to member banks represent a doubly effective instrument of monetary policy; that is to say, they are effective both in increasing or reducing excess primary reserves, and in enlarging or curtailing the expansibility of those excess reserves which remain after the changes have taken place. A simple illustration will clarify this point. Suppose that the commercial banking system holds \$80,000,000,000 of demand deposits, and that it has \$22,000,000,000 of primary reserves, and that the average legal reserve requirement is 20 per cent. As only \$16,000,000,000 of the reserves are required, the remaining \$6,000,000,000 can be expanded in the creation of \$30,000,000,000 of new demand deposits. Now suppose that average reserve requirements are raised to 25 per cent. Immediately the reserves required become \$20,000,000,000, leaving only \$2,000,000,000 of excess reserves—an amount which can be expanded only to \$8,000,000,000 of new demand deposits, instead of to \$30,000,000,000 as formerly would have been possible.

Several difficulties, however, may attend changes in reserve requirements. Excess reserves are not always scattered uniformly throughout the banking system; while an increase in requirements may be met with ease by some banks, it may acutely embarrass other banks which do not have reserves beyond their needs. As a result, those banks which lack excess reserves may feel compelled to call in outstanding productive loans and to refuse to grant others. Frequent substantial changes in reserve requirements, moreover, tend to place the individual commercial bank in an uncertain position respecting its capacity to grant loans and to purchase investment securities. Though a bank may possess excess reserves, it may hesitate to use them for loans and investments because it anticipates a rise in requirements.

RESERVE POLICY

The Board of Governors first exercised its power to change reserve requirements in the summer of 1936, when excess reserves of member banks had reached a total of approximately \$3,000,000,000. All requirements were uniformly raised 50 per cent effective August 16. The years 1935 and 1936 were years of economic recovery in which the price level rose slowly and industrial production expanded rapidly. The board was fearful of a rapid credit expansion which could not be curbed by discount rate manipulation and open-market operations. Although the increase of August 16 temporarily reduced excess reserves, the continual inflow of gold served rapidly to rebuild them.

As most of the price indexes continued to rise in the early months of 1937, the board announced a further increase in requirements to bring them to the maximum permitted by the Banking Act of 1935. One half of the

increase went into effect on March 1, and one half on May 1. As a result of this action, excess reserves were reduced to the lowest level since September, 1933, amounting to a daily average of \$750,000,000 in the month of August, 1937. There followed, however, a "recession" in business activity which got under way in the fall of 1937 and which continued into the spring of 1938. The "recession" was generally attributed to a severe reduction in the pump-priming expenditures of the federal government. Hoping to arrest the decline in business activity by providing the commercial banks with an increased capacity to grant loans, the Board of Governors reduced reserve requirements by approximately one eighth, a change which took effect on April 16, 1938.

Despite the fact that excess reserves climbed to unprecedented heights following the reduction in requirements in 1938, no further change in requirements became effective until November 1, 1941. Excess reserves averaged close to \$5,000,000,000 in the closing months of 1939 and approached \$7,000,000,000 in the summer and fall of 1940. These figures explain why the Board of Governors failed to act, for an increase in requirements once again to the permitted maximum would have eliminated only a small portion of the excess reserves, and, at the same time, would have estopped the board from further actions of that kind.

So disturbed were the federal reserve authorities by the realization of the almost complete futility of their powers of monetary management that the Board of Governors, the presidents of the twelve reserve banks, and the members of the Federal Advisory Council joined in submitting a special report to Congress on December 31, 1940, in which they asked for an expansion of their powers, especially those directly affecting the reserves of the commercial banks.⁴ Specifically the reserve authorities included the following recommendations: that the minimum required reserves provided by law be made double those set by the amendment of 1917, that is, for demand deposits, 26 per cent, 20 per cent, and 14 per cent for central reserve city banks, reserve city banks, and country banks respectively, and for time deposits, 6 per cent for all banks; that the Federal Open Market Committee (rather than the Board of Governors alone) be authorized to raise reserve requirements to as much as double the recommended legal minimums; that the Federal Open Market Committee be permitted to vary reserve requirements for banks of the three classes singly or in any combination; and that the requirements fixed in the law as well as changes authorized by the Federal Open Market Committee be made applicable to all banks engaged in receiving demand deposits, and not merely to member banks of the Federal Reserve System. Congress, however, made a slight concession only with respect to the proposal for independent changes among the three classes of banks.⁵

⁴ For the text of the special report, see *Federal Reserve Bulletin*, January, 1941, pp. 1-2.

⁵ By the act of July 7, 1942. See above, p. 218.

The rise in requirements of November 1, 1941, brought them once again to the maximum permitted by the Banking Act of 1935. The step was taken when evidences of inflation were to be found everywhere. Prices of many kinds of goods had been rising with extreme rapidity, and industrial production had far surpassed the volume reached in the boom year of 1929. Greatly accelerated government spending for national defense, the shortage of many vital materials, "bottlenecks" in industry, the great expansion of purchasing power in the hands of consumers—all threatened an uncontrollable rise in the general price level.

In the summer of 1942, however, the reserve authorities came to a realization that the maintenance of reserve requirements at the maximum level was working a hardship upon the banks of New York City. Because New York is the location of the principal money and capital markets of the country, the New York banks are peculiarly affected by treasury financial operations. They are called upon to make large payments to the Treasury not only for their own heavy purchases of treasury obligations but also for those of their customers; and the reserves thus lost are not regained by treasury expenditures, since the expenditures are by no means concentrated in New York City. Thus the average daily excess reserves of the New York member banks, which amounted to \$2,150,000,000 in July, 1941, had been reduced to \$269,000,000 one year later. This decline in excess reserves amounted to approximately 87 per cent, while the excess reserves of member banks outside New York were reduced by only 35 per cent in the same period. To relieve the pressure upon the New York banks, therefore, the Board of Governors reduced central reserve city requirements from 26 to 24 per cent effective August 20, 1942, from 24 to 22 per cent effective September 14, and from 22 to 20 per cent effective October 3. No changes in requirements for reserve city banks and country banks were ordered at this time; thus, after the change of October 3, 1942, reserve requirements of central reserve city banks and of reserve city banks were identical for the first time since the adoption of the Federal Reserve Act in 1913.

Margin Requirements

NATURE OF REGULATIONS

The knowledge that much bank credit was used for speculation in securities during the stock market boom of 1928 and 1929 led Congress, in the Securities Exchange Act of 1934, to delegate to the Board of Governors of the Federal Reserve System the authority to fix margin requirements upon loans granted for purchasing and carrying securities registered upon national security exchanges. The term *margin requirement* may be defined as the proportion of the purchase price of securities which must be supplied by the investor himself, or, more accurately, it is the proportion which banks and security dealers are not permitted to lend. Thus the "loan value" of a

security is the difference between its market value at the time the margin transaction is arranged and the margin requirement. To illustrate, suppose that an investor is buying securities worth \$10,000 at a time when the margin requirement is 40 per cent. The investor would have to put up \$4,000 of his own money, and he would be permitted to borrow the remaining \$6,000 of the purchase price from his bank or from the security dealer through whom he buys.

The authority of the Board of Governors in regulating margin requirements extends to all commercial banks, whether or not they are members of the Federal Reserve System, to members of national security exchanges, and to other brokers and dealers who transact business through members of national security exchanges. In general, the board may set margin requirements with respect to three types of transactions which involve the purchase and holding of securities, namely, loans by banks to dealers in securities, loans by banks to all customers who are not dealers, and loans by dealers to their customers.

The application of changes in margin requirements as an instrument of monetary policy is direct—the higher the requirements the less can bank credit be used for stock market speculation. Of course, even a 100 per cent margin requirement would not of itself eliminate speculation, for those so inclined could still buy in anticipation of rising prices, or sell short in anticipation of falling prices, but they would have to do so with their own rather than with borrowed funds.

MARGIN POLICY

The original margin requirements fixed by the Board of Governors were put into effect in the fall of 1934; they were applicable only upon "long" transactions—that is, upon purchase transactions, as distinct from short sales—and they placed limits solely upon loans granted by brokers and dealers to their customers. In 1936, the regulations were extended to include the loans granted by commercial banks for the purchasing and carrying of registered securities. The original requirements were determined on the basis of a sliding scale ranging from 25 per cent to 45 per cent, depending upon the extent to which the current price of a security had advanced from its lowest price in the three preceding years. This type of regulation had the effect of requiring larger margins on securities which advanced most rapidly in price.

In view of the continuous advance in security prices through the year 1935 and the early months of 1936, the board, as a precautionary measure, raised the maximum requirement to 55 per cent, and on April 1, 1936, made it applicable to all registered securities regardless of the extent to which their prices had advanced since 1934. A change in the opposite direction, apparently found desirable by the board because of the abrupt fall in the prices of stocks in the summer and autumn of 1937, was made effective on

November 1 of that year; it lowered the margin requirement on "long" transactions to 40 per cent and, at the same time, it introduced a new 50 per cent margin requirement for short sales. No further change was ordered into effect until February 5, 1945, when the margin requirement on "long" transactions was raised to 50 per cent. Later in the same year, effective July 5, the requirement on both "long" and "short" transactions was raised to 75 per cent, and early in the following year, effective January 21, the requirement on both types of transactions was brought to a full 100 per cent. The increases in requirements in 1945 and early 1946 were ordered in a period when a strong "bullish" pressure was being exerted in the stock market; although there had been only a moderate increase in the volume of outstanding stock market loans, the Board of Governors apparently felt that it must "put on the brakes" before a rapid expansion could get under way. The board realized that much money was available in the hands of speculators for transactions upon a basis of full cash payment, and it doubtless believed that the supplies of such speculative funds ought not to be increased by the liberal extension of loans.

Direct Action

Another instrument of monetary policy possessed by the Board of Governors is known as "direct action." Before 1933, the board and the reserve banks had adopted various procedures of direct action upon their own volition; but the Banking Act of 1933 gave the sanction of law to some procedures of this character. Direct action may be described as the specific approval or disapproval of the loan and investment policies of individual member banks, and the assessing of penalties against those member banks which refuse to discontinue practices judged unsound.

DIRECT ACTION BEFORE 1933

Following the First World War, the reserve authorities carried on a campaign to remove "war paper" from the portfolios of the member banks. "War paper" was that upon which bank customers had borrowed to buy Liberty and Victory bonds. Member banks were advised by mail and by visits of representatives of the reserve banks to rid themselves of such paper; some were refused rediscount privileges at the reserve banks; and some had to pay penalty rates of interest for the privilege of rediscounting.

In the early months of 1929, the Board of Governors made use of the instrument of direct action in an attempt to prevent the further expansion of member bank loans for stock market speculation. As rediscounts of member banks at the reserve banks amounted at that time to approximately \$1,000,000,000, the board warned the member banks that such a large volume of rediscounts was not justifiable in view of their numerous loans on stock market collateral. In February, the board threatened to refuse rediscount privileges to those banks which maintained an excessive portfolio of loans

granted for speculative purposes. In a public statement, the board declared: "A member bank is not within its reasonable claims for rediscount facilities at its Federal Reserve bank when it borrows either for the purpose of making speculative loans or for the purpose of maintaining speculative loans."⁶

DIRECT ACTION IN THE BANKING ACT OF 1933

The Banking Act of June 16, 1933, placed the stamp of Congressional approval upon the methods of direct action. The Board of Governors was empowered, in the first place, to suspend the discounting privileges of member banks guilty of making undue use of bank credit "for the speculative carrying of or trading in securities, real estate, or commodities, or for any other purpose inconsistent with the maintenance of sound credit conditions." Second, the board was given the authority to determine for each federal reserve district the proportion of each member bank's capital and surplus which may be loaned upon stock and bond collateral. The board may change the proportion at any time upon notice of ten days. Third, the board received the power to order any member bank to refrain from increasing the volume of its loans upon stock and bond collateral for any period as long as one year. If the member bank fails to comply, it may be denied all discount privileges at its district reserve bank. Fourth, the board was authorized to suspend any member bank's privilege of borrowing from its district reserve bank upon its own promissory notes secured by government obligations if it increases its loans upon stock and bond collateral when warned not to do so. Additionally, the board may declare immediately due notes of this character already discounted at the reserve bank. Finally, the Banking Act of 1933 authorized the Board of Governors to remove officers and directors of member banks found guilty of "unsafe and unsound" banking practices—a term broad enough to include, if it includes nothing else, the excessive use of credit for speculative purposes. Before it may exercise this power, however, the Board of Governors must warn the accused officer or director and give him an opportunity to cease the "unsafe and unsound" practices; furthermore, it must give him a reasonable opportunity to defend himself.

DIRECT ACTION IN THE WAR PERIOD

An interesting application of the instrument of direct action is found in the campaign undertaken in June, 1942, by the Board of Governors and other federal supervisory authorities to discourage the extension of bank credit for the accumulation of large inventories of consumption goods. The Chairman of the Board of Governors addressed a letter to all banks and other financial institutions urging "that you will use your influence in your community to discourage all unnecessary purchases of civilian goods and that you will scrutinize carefully every application which might enable a borrower to carry a greater supply of goods than his minimum require-

⁶ *Federal Reserve Bulletin*, February, 1929, p. 94.

ments."⁷ At the same time, all federal bank examiners were instructed to give special attention, in the course of their examinations, to bank policies respecting loans for the carrying of inventories of consumption goods; they were told to include in their reports their conclusions as to whether or not the particular banks examined were complying with the terms of the board's letter.

The Control of Consumption Credit

A new device of monetary policy was introduced by an executive order of President Roosevelt of August 9, 1941, which concerned the extension of credit for consumption purposes.⁸ The President authorized the Board of Governors to regulate the granting of credit by banks, small loan companies, sales finance companies, other financial institutions, and merchants to finance the sales of various kinds of consumers' goods. In carrying out the President's order the board designated the minimum down-payments, the maximum maturity, and other details of contracts to be negotiated in the sale of such durable consumers' goods as automobiles, mechanical refrigerators, radios, stoves, washing machines, and vacuum cleaners.

The adoption of limitations upon the extension of consumption credit and consumption cash loans had two basic objectives: to reduce the demand for strategic materials used in the production of consumption goods at a time when the system of priorities had not been well established, and to prevent a further increase in consumer purchasing power when it was already being enormously swollen by national defense expenditures. The significance of the first of these objectives was greatly reduced when, subsequently, the production of many kinds of consumption goods was suspended; but the importance of the second remained throughout the period of the war.

The original regulations of the board, which became effective in part on September 1, 1941, and in part in succeeding months, were extremely mild in their application; they seemed simply to accept many of the practices already observed by financial institutions and dealers in granting installment loans and installment credit. Frequent amendments, however, progressively tightened the regulations to make them more effective as a means of curtailing consumer purchasing power. Upon the conclusion of the war, sentiment began to grow for the removal of the restrictions, but, for several months, the Board of Governors was adamant in its refusal to modify the regulations. Throughout the year 1946, however, it made various small concessions, and, finally, effective December 1, 1946, it ordered a suspension of many of the regulations and a material relaxation of those which remained.⁹

⁷ *Federal Reserve Bulletin*, July, 1942, p. 645.

⁸ Executive Order No. 8843, reprinted in full, together with the board's original regulations, in the *Federal Reserve Bulletin*, September, 1941, pp. 837ff.

⁹ A further brief discussion of the board's regulations may be found below, pp. 580-581.

Chapter 28

MONETARY POLICY OF THE TREASURY

The Position of the Treasury

The power to influence the expansion and contraction of the volume of money, we have indicated, is now shared in most countries between the central bank and the officials of the national treasury. Such a situation certainly obtains in the United States. All financial activities of the federal government, such as direct monetary regulations, the shifting of its working balance, borrowing, and the making of expenditures, affect the outstanding volume of money whether or not a specific "monetary policy" has been adopted by treasury officials. At times government financial operations seem to be undertaken quite haphazardly, and at other times they are apparently designed to achieve certain objectives by their effects upon the monetary situation.

In recent years, the huge financial operations of the federal government have placed such enormous powers of monetary control in the hands of treasury officials that the influence of the federal reserve authorities has been overshadowed—a fact acknowledged by the Board of Governors in its annual report of 1938, cited in the second preceding chapter, which remarked that "under existing conditions the Treasury's powers to influence member bank reserves outweigh those possessed by the Federal Reserve System." That statement was made before the launching of the "all-out" national defense program of 1940 and the participation of the United States as a combatant in the Second World War—events which have greatly increased the importance of the Treasury's position.

It is our purpose in the present chapter, therefore, to determine in what manner treasury financial operations affect the volume of money, and to decide to what extent such operations may be managed to produce certain effects in the furtherance of specific policies.

USE OF THE TERM TREASURY

For reasons of simplicity, it is desirable in the present chapter to use the term *Treasury* in a much broader sense than that in which it is ordinarily employed. In customary usage, the Treasury is described as that

department of the federal government charged with the duty of collecting taxes, borrowing, and making disbursements to meet the expenditures of the government. For our purposes, however, it will be convenient to think of the "Treasury" as *the repository of all the financial powers delegated by Congress to federal administrative officials other than the authorities of the Federal Reserve System*. Some of the financial powers are exercised according to the wishes of the President; others are subject to the decisions of the Secretary of the Treasury; and still others come within the jurisdiction of other administrative officers of the government. Some of the powers are mandatory, that is, they must be exercised according to the specific instructions laid down by Congressional legislation; others may be exercised at the discretion of the officials in whom they are vested.

EXTENT OF TREASURY POWERS

The powers of the Treasury to control the volume of money are generally more fluid than are those of the federal reserve authorities; the former are frequently subject to enlargement or curtailment by Congressional legislation, while the latter remain unchanged for relatively long periods of time. Every monetary regulation, every revenue measure, every appropriation act, and every authorization to borrow enacted by Congress changes the scope of treasury authority. Hence to understand the significance of treasury policies, it is necessary to consider not only the scope of its authority at a particular time but also the possibilities of modifications.

One could, of course, allow one's imagination to run riot in contemplating all the new treasury powers that could be created by Congress—for the sovereign authority of the federal government could be exercised in producing a complete transformation in our monetary and banking system, making it totally unlike what we have known in the past. It is desirable, however, to confine our discussion to those powers of the Treasury which are already existent or which could be introduced with only minor changes in the present financial framework of the country. Within these limits, therefore, we may reasonably consider the Treasury's policy with respect to the monetary standard itself, its method of managing its own working balance, and its policies of taxation, borrowing, and expenditure.

Policy Respecting the Monetary Standard

CHANGES IN THE MONETARY GOLD STOCK

Increases in the Gold Stock.—The Treasury determines the nation's gold policy within the limits prescribed by Congress. All increases in the monetary gold stock of the country tend to augment the primary reserves of the commercial banking system and to make possible a severalfold expansion of demand deposits; all decreases in the gold stock have a converse tendency. Increases in the physical volume of the gold stock may come

about by the importation of gold, by domestic production, and by reclamation of gold from artistic and industrial uses. If gold is sent into the United States by a foreign central bank and deposited, say, with one of the large commercial banks of New York City, the latter credits the account of the foreign bank, sells the gold to the Treasury, and receives payment in the form of a check drawn upon the federal reserve banks. Ordinarily the transaction is completed by merely transferring the payment on the books of the federal reserve banks from the deposit balance of the Treasury to the reserve account of the New York bank. Thus the demand deposits and primary reserves of the banking system are expanded. Because the demand deposit created in favor of the foreign central bank requires the setting aside of reserves, only that portion of the new primary reserves in excess of this requirement is available for commercial bank loans and investments.

In like manner, when American mining companies sell gold to the Treasury, they deposit the checks received in payment at their commercial banks, and the latter receive payment by a transfer of funds from the treasury deposit balance to their own reserve accounts at the reserve banks. Again both demand deposits and primary reserves are enlarged.

With respect to monetary expansion—both potential and actual—resulting from increases in the monetary gold stock, the Treasury has followed a passive policy except for its sterilization operations of 1936–1938 which are discussed below. No direct action, such as the refusal to buy gold imported or newly produced within the country, has been attempted, as it would doubtless violate the intent of the Gold Reserve Act that all money in circulation be kept at par with gold.

Decreases in the Gold Stock.—Decreases in the monetary gold stock may be occasioned by exportation and by the use of gold in the arts. Here treasury policy may be more decisive, since the Secretary of the Treasury has the authority to license and restrict the exportation and the domestic use of gold. Should the federal reserve banks want to convert some of their gold certificates into gold for exportation in the settlement of international obligations, the Treasury might refuse permission for the transaction. Similarly, the Treasury may limit the use of gold in the domestic arts. So far, however, the Treasury has not attempted to prevent the reduction of the monetary gold stock by limiting exports and the industrial consumption of gold. Evidence of the absence of restrictions of this kind is found in the fact that the monetary gold stock was permitted to decline by \$788,500,000 in the year 1943, by \$1,319,000,000 in 1944, and by \$553,900,000 in 1945.¹

Sterilization of Gold.—Although increases in the monetary gold stock have the normal effect of expanding the primary reserves of the commercial banking system, this effect may be prevented by means of a treasury policy known as *sterilization*. A policy of sterilization envisages the withdrawal

¹ *Federal Reserve Bulletin*, March, 1946, p. 302.

from the commercial banking system of a volume of primary reserves equal to that created by the addition to the gold stock. In the absence of a policy of sterilization, the Treasury, after buying gold, replenishes its depleted deposit accounts at the reserve banks by issuing gold certificates to them (or by giving them "gold credits" on its own books) upon the security of the gold purchased. If, however, a policy of sterilization is in force, the Treasury borrows the funds with which to buy the gold, and fails to deposit gold certificates with, or to establish gold credits for, the reserve banks.

Let us illustrate the procedure. A New York bank receives a shipment of \$10,000,000 of gold from a foreign central bank, sells the gold to the Treasury, and receives in payment a treasury check drawn upon the federal reserve banks. In clearing the check, the New York bank has its reserve balance increased by \$10,000,000, and the Treasury's deposit balance is reduced by an equal amount.² Now the Treasury sells in the open market \$10,000,000 of bonds or other debt instruments. Whether these are bought by banks or by bank depositors, the ultimate effect is to transfer \$10,000,000 from commercial bank reserve balances to the Treasury's deposit accounts. Thus the original increase in primary reserves resulting from the importation of gold is nullified by the reduction of reserves occasioned by the sale of the bonds. Indeed, the sterilization operation has the effect of reducing somewhat the capacity of the commercial banking system to expand the volume of money when the commercial banks themselves are the buyers of the Treasury's newly issued bonds; for when the operation is completed, the commercial banks have no additional primary reserves but they have a new demand deposit (that of the foreign central bank) to safeguard which some of the reserves formerly "free" must be set aside.

An important disadvantage of a policy of sterilization is that it is costly to the government; it requires the payment of interest upon the government bonds sold in the purchase of gold, yet the gold is held "inactive" in the Treasury. The interest expense continues to be incurred, of course, so long as the gold remains sterilized.

Sterilization Policy of 1936-1938.—In December, 1936, a program of sterilization was initiated in the United States. The monetary gold stock had increased by more than \$4,000,000,000 since January 31, 1934, when the dollar was devaluated, the excess reserves of member banks amounted to more than \$2,000,000,000, and both the Treasury and the federal reserve officials were fearful of the development of an uncontrollable expansion of bank credit. The sterilization policy was continued for approximately sixteen months, and by March 31, 1938, the "inactive" gold account had grown to \$1,183,000,000.³ The Treasury announced on February 14, 1938, that the sterilization program would be modified to the extent that only those in-

² To avoid details which are likely to be a source of confusion, the Treasury's mint and handling charges are disregarded.

³ *Annual Report of the Secretary of the Treasury on the State of the Finances, 1938*, p. 526.

creases in the monetary gold stock in excess of \$100,000,000 in any quarterly period would be sterilized; and on April 19, 1938, the Treasury announced the discontinuance of the sterilization policy.⁴

The policy of sterilization was widely criticized because it resulted in an increase in the national debt of more than a billion dollars, and because the interest incurred upon the borrowings required an increase in current government outlays. Moreover, the policy was generally regarded as a futile gesture since it in no way impeded the further importation of gold.

Devaluation of the Dollar.—The act of devaluing the dollar tends to have a profound effect upon the outstanding volume of money because it automatically increases the dollar value of the monetary gold stock. The devaluation of January 31, 1934, as we have seen,⁵ immediately increased the dollar value of the gold stock of the United States by \$2,806,000,000. To the extent that this increment and that derived in subsequent years have been spent they have had the effect of expanding the primary reserves of the commercial banking system. As a matter of fact, the greater part of the total increment was sterilized for many years—\$1,800,000,000 in the Exchange Stabilization Fund, and approximately \$144,000,000 as an additional inactive account in the Treasury. However, the allocation of the inactive balance of the Exchange Stabilization Fund for the partial payment of our subscription to the International Monetary Fund makes it available as an additional source of commercial bank primary reserves—such reserves tend to expand as the International Monetary Fund “sells” to foreign central banks the dollars obtained from our subscription.

The remaining resources of the Exchange Stabilization Fund—the deposits of the fund at the Federal Reserve Bank of New York—and the inactive gold account of the Treasury are still available for spending. These resources could be used at any time, for example, to retire outstanding government securities. Moreover, Congress always has the power further to devalue the dollar to any level it chooses, so that unlimited billions of dollars of additional “profits” could be derived. When spent, these “profits” would tend to increase the primary reserves of the banking system in an equal amount.

Revaluation of the Dollar.—A policy of revaluation, on the other hand, would have no immediate effect upon the primary reserves of the commercial banking system and the outstanding volume of money, for the reason that no commercial bank holds gold or gold certificates. The Treasury, however, would be vitally affected, as it would bear the “loss” on revaluation just as it previously seized the increment which resulted from devaluation. To the extent that the Treasury would have to compensate the federal reserve banks for the necessary write-down in the book value of their gold assets the “loss” presumably would be reflected in an increase in the

⁴ *Ibid.*, pp. 263–264.

⁵ See above, p. 77.

national debt, that is, the Treasury would be likely to issue new government bonds to the reserve banks to offset the write-down in the value of the gold certificates. Not only would the national debt be increased in this way, but in addition the Treasury would suffer a loss in the write-down of the dollar value of all gold held in its inactive account. Although the President's power to revalue the dollar has expired—and it was, at best, only a very limited power, since he could raise the gold content of the dollar only from 13.714 grains of fine gold to 13.932 grains—Congress could order a revaluation of any magnitude.

Although the revaluation itself, as we have indicated, would not automatically produce a change in the quantity of money in circulation, it is likely that changes would quickly result from the revaluation. Most importantly, the reduction in the gold certificate assets of the federal reserve banks would greatly restrict their capacity to create new primary reserves for the commercial banks by means of advances and open-market operations. Furthermore, subsequent increases in the physical quantity of the country's gold stock by importation, production, and reclamation would add less in dollar values to the reserves of the commercial banking system.

SILVER POLICIES

Silver Purchases.—The buying of silver by the Treasury in accordance with the terms of our present silver purchase legislation tends to increase the primary reserves of the commercial banking system in an amount equal to that paid for the silver, and therefore to make possible a several-fold expansion of demand deposits. This is true whether foreign or domestic silver is purchased. The silver is paid for by the Treasury by means of checks drawn upon the federal reserve banks. When these checks are deposited in the commercial banks by the silver mining companies or by the foreign sellers, the banks in clearing them obtain increased reserve balances on the books of the reserve banks. The Treasury issues silver certificates in the amount of the cost price of the silver, deposits these with the federal reserve banks, and thus restores its deposits to the level existing before the silver was bought. To the extent that the newly issued silver certificates are not needed for hand-to-hand circulation, and are not drawn out by the general public—or, if drawn out, merely replace other kinds of money in circulation—we may say that bank primary reserves are likely to be increased in direct proportion to the volume issued.

Although the act of July 31, 1946, requires the Treasury to buy at 90.5 cents per fine ounce all newly mined domestic silver which may be offered to it, the Secretary of the Treasury retains the authority to determine when, in what volume, and at what price foreign silver will be bought, as well as the terms upon which the Treasury will sell from its silver stocks. Thus in a limited way, the buying and selling of silver may be used as an instrument of monetary policy.

Monetization of the Seigniorage.—The Treasury, in buying silver, issues silver certificates only to meet the cost of the quantity purchased. It has the authority, however, to issue silver certificates equal in face value to the monetary value of the silver—the fictitious “book value” of \$1.29 per ounce which harkens back to our bimetallic monetary standard of 1792. Thus when the Treasury buys an ounce of newly mined domestic silver at the established price of 90.5 cents, it may issue \$1.29 of new silver certificates. Such a “monetization of the seigniorage” would make possible the expansion of the outstanding volume of money at a much more rapid rate than does the issue of silver certificates only in the amount of the purchase price. The Treasury’s policy of carrying on its books at cost most of the silver which it has purchased can be observed without prejudice to its own financial interests—for a policy of refusing to monetize the seigniorage, unlike a sterilization program, costs the government nothing so far as its own expenditures are concerned.

PAPER MONEY POLICY

The Treasury has the capacity to influence the volume of money by issuing and retiring paper money. Although the authority of the President to order the issuance of \$3,000,000,000 of greenbacks according to the terms of the “Inflation Amendment” of the Agricultural Adjustment Act was revoked by the act of June 12, 1945, Congress may at any time authorize or order the issue of any quantity, however vast, of such paper money—it could order the national debt to be paid off by this means.

If the President, upon proper authorization by Congress, should order the Secretary of the Treasury to issue a batch of greenbacks, the new money would presumably be delivered to the federal reserve banks, where the Treasury’s deposit accounts would be increased by an equal amount. As the Treasury drew upon these accounts in meeting its pay roll, in buying supplies and equipment, in paying off outstanding obligations (if that were authorized) and in meeting other expenditures, these newly created treasury deposits would be transferred to the reserve accounts of the commercial banks.

As the Treasury, on the other hand, retires the federal reserve bank notes, the national-bank notes, and the treasury notes of 1890, the normal effect is to reduce commercial bank primary reserves. As these three types of notes come into the reserve banks in shipments of hand-to-hand money from the commercial banks, they are permanently retired by a transfer of balances from the Treasury’s deposits to those of the commercial banks which make the shipments. This action alone causes no diminution of reserves, for the commercial banks merely change the form and not the amount of their primary reserves. Because, however, the Treasury reduces its deposit accounts at the reserve banks through the operation, it will presumably replenish them by raising tax revenues or by borrowing in the

market—transactions which are likely to cause a movement of balances from commercial bank reserves to the deposits of the Treasury. Obviously the same effect would be had in the retirement of the greenbacks, the silver certificates, or any other kind of hand-to-hand money in circulation.

SUBSIDIARY COIN POLICY

The Treasury could influence the volume of money by minting redundant quantities of subsidiary coins, delivering them to the federal reserve banks for deposit credit, and then spending the deposits so created. To the extent that the face value of the coins exceeded the costs of metal and the expenses of minting, the primary reserves of the commercial banking system would very likely be increased. Since, however, there are many easier ways by which the Treasury may create new purchasing power, if it is so inclined, the prospects of issuing excessive quantities of subsidiary coins are of little importance and may be quickly dismissed.

The Management of Cash Balances

WORKING BALANCE OF THE GENERAL FUND

In the management of its own cash resources, the Treasury possesses an effective instrument of monetary policy. Most significant among its cash resources are those included within the so-called working balance of the general fund, a balance which comprises three elements: hand-to-hand money—excluding all inactive accounts—held in its own vaults, demand deposits with the federal reserve banks, and demand deposits with the commercial banks. By shifting these three portions of its working balance, the Treasury may effect changes in the size of commercial bank primary reserves. If the total working balance is held constant, a reduction in the portion kept in the Treasury itself or with the federal reserve banks, and an increase in the portion kept with the commercial banks, will result in an equal increase in the reserves of the latter.

Similarly, a shift of treasury deposits from the commercial banks to the reserve banks means a reduction in the reserves of the former. Indeed, if the commercial banks have only enough primary reserves to satisfy the legal requirements, the Treasury could create a "tight" money situation by making such a transfer.

The transfer of funds by the Treasury was recognized as an important instrument of monetary policy long before the establishment of the Federal Reserve System. It was generally known that the collection of hand-to-hand money in the Treasury and in the subtreasuries in certain periods of the year tended to disturb the course of business activity because of the resulting shortage of means of payment in the hands of the public. The Treasury, therefore, often came to the rescue of the commercial banking system by

merely removing money from its own vaults and depositing it with the commercial banks.

The potency of shifts in the working balance as an instrument of monetary policy was never more apparent than during the period of the Second World War. While the Treasury was generally satisfied to maintain a working balance of approximately \$2,000,000,000 in the latter years of the 1930's, the working balance at various times during the war period soared to a level ten times that figure and more. Treasury officials realized that vast movements of funds from the commercial banks to the federal reserve banks at times of heavy tax collections and war bond sales would profoundly affect the reserve position of the commercial banks. Their war-time policy, therefore, was designed to avoid pronounced disturbances to commercial bank reserves which would be likely to result from all kinds of payments to the government as well as from payments by the government to the suppliers of war materials, to its employees, and the like. Its campaign to have the commercial banks qualify as "war loan depositaries" was a step in this direction, for banks so qualified were permitted to keep on deposit the proceeds of their sales of government obligations until such time as the funds were immediately needed by the Treasury for expenditures. Another type of action having the same objective was the overdrawing by the Treasury of its deposit accounts with the federal reserve banks—an action which was taken when the calling in of its deposits from the commercial banks would have caused stringency in their reserve position.⁶

OTHER FUNDS

Effects similar to those produced by the shifting of the Treasury's working balance in the general fund may be produced by the manipulation of other funds. Of these, the most important are the Exchange Stabilization Fund, the Old-Age and Survivors Insurance Trust Fund and the Unemployment Trust Fund established under the Social Security Act, the Railroad Retirement Account, and the Civil Service Retirement Fund.

New commercial bank primary reserves could be created by using the resources of the Exchange Stabilization Fund in the purchase of foreign currencies and federal obligations in the domestic market, or by simply shifting them as deposits to the commercial banks. Thus the fund's balance on deposit at the Federal Reserve Bank of New York could be "pumped out" as new primary reserves.

The Social Security trust funds are built up by the payment of payroll taxes by employers and employees. The funds so collected are turned

⁶ Treasury overdrafts at the federal reserve banks during the war years did not appear as debit balances in its deposit accounts, for the reason that the Treasury sold special certificates of indebtedness to the reserve banks to offset the debit balances which otherwise would have resulted from overdrawing. On September 15, 1943, for example, federal reserve bank holdings of special certificates of indebtedness amounted to \$424,000,000.—*Federal Reserve Bulletin*, October, 1943, p. 989.

into the Treasury's general fund in exchange for interest-bearing obligations of the federal government, and the tax revenues are then spent in the same manner as other revenues of the Treasury. Thus the commercial banks which are deprived temporarily of reserves when the taxes are paid to the government regain them when the tax revenues are spent in meeting the operating expenditures of the government. The other special funds of the government are managed much in the same way. Now it would be possible, as a matter of treasury monetary policy, to immobilize for whatever period might be thought appropriate the money paid into the general fund from the special funds.

Taxation, Borrowing, and Expenditure

TAXATION POLICY

Although taxation is a powerful means by which the federal government may bring about far-reaching changes in economic organization and activity, it is not commonly regarded as an important instrument of direct monetary policy. Taxes which are specially designed for economic control, such as those levied upon undistributed profits, taxes upon chain stores, and taxes upon profits derived from speculation, may strongly influence the direction of business activity; but taxes which have for their sole purpose the raising of revenue have little lasting effect upon the monetary situation for the reason that whatever changes in the volume of money are produced by the collection of taxes are usually reversed when the revenue is expended. Temporarily, of course, bank primary reserves and demand deposits are likely to be reduced as taxes are paid by the general public, for the collection of the checks which taxpayers draw against their deposit accounts results in a transfer from the commercial bank reserve accounts at the federal reserve banks to the deposit accounts of the Treasury. As soon, however, as the Treasury spends the funds so raised, the recipients of treasury checks deposit them with their commercial banks, and the situation which previously existed is restored.

If the revenues of the Treasury are so great as to exceed its expenditures for current operations and debt retirement, and if the surplus goes to swell that portion of the Treasury's working balance not held with the commercial banks, the effect, so long as the situation continues, is permanently to reduce commercial bank reserves and demand deposits. The surpluses of the 1830's and the early 1880's, for example, were an embarrassment to the Treasury for the reason that they tended to disturb the normal course of business activity—but in our day, of course, no such difficulty is likely to be faced.

• Taxation may directly affect the volume of money by forcing many taxpayers to borrow the funds needed to meet their tax obligations; to the extent that the commercial banks supply such funds, taxpayers' borrowings

have the effect of increasing the volume of demand deposits. The effect is the same, of course, whether the taxpayers pay their taxes out of current income and then borrow to meet their living expenses, or whether they use current income to meet living expenses and then borrow to pay taxes which are abnormally heavy. In recent years, many individuals and corporations have found themselves without sufficient cash resources to pay the unprecedented taxes made necessary by our national defense and war programs. Embarrassment in meeting tax obligations first became distinctly noticeable in the spring of 1942, when many people preferred to borrow, and to pay interest upon their borrowings, than to incur the penalties for delinquency in their tax payments.⁷ The adoption in 1943 of the pay-as-you-go plan of collection of federal taxes upon individual net income was designed, of course, to remove as far as possible the occasion for borrowing by taxpayers, for taxpayers who receive wages and salaries already reduced by the amount of withheld taxes are likely to trim their personal budgets to keep living expenses less than or equal to the reduced amount of cash actually received.

BORROWING POLICY

Effects of Treasury Borrowing.—When the Treasury borrows by the sale of its bills, certificates of indebtedness, notes, and bonds, (1) there may be no lasting effect upon commercial bank reserves and deposits; or (2) demand deposits may be increased with no effect upon primary reserves, although excess reserves are reduced; or (3) primary reserves and demand deposits may both be increased.

The reserves and deposits of commercial banks are not likely to be affected permanently when the Treasury sells its securities to private individuals, industrial corporations, savings banks, and, in short, to all kinds of institutions other than the commercial and federal reserve banks. The private individuals and the institutions of the category described ordinarily pay for the securities which they purchase by drawing checks upon their deposit accounts with the commercial banks. As the checks are cleared, the demand deposit balances of the buyers are reduced on the books of the commercial banks. Temporarily, the Treasury may keep the funds on deposit with the same commercial banks, as in its "war loan accounts," but, sooner or later, the funds are transferred from the commercial banks to the federal reserve banks, the transfer requiring a reduction in the reserve accounts of the commercial banks at the federal reserve banks as the treasury balances there are increased. As soon, however, as the Treasury spends the borrowed money by drawing checks against its deposits with the reserve banks, the payees deposit the checks at the commercial banks, and the latter collect by having their reserve balances increased. Hence both the re-

⁷ See comments in *Monthly Review of Credit and Business Conditions* of the Federal Reserve Bank of New York, March 1, 1942, p. 19.

serves and the demand deposits of the commercial banks are restored to the level which obtained before the borrowing took place.

When the Treasury borrows by selling its securities to the commercial banks, an expansion of demand deposits takes place. If the buying banks are qualified as "special depositaries" or as "war loan depositaries," they may pay for the securities in the first instance by merely placing the amount due in demand deposit accounts payable to the Treasury. In time, however, the Treasury orders the depositary banks to transfer its credit balances to the federal reserve banks. This is done once again by shifting balances from the commercial banks' reserve accounts to the Treasury's deposit accounts. But as the Treasury spends the money borrowed, the primary reserves of the commercial banks are restored to their former level, for the payees of the government checks deposit them at the banks. But these deposits at the commercial banks are new deposits, as they were created through the government's act of borrowing. Such new deposits, it is important to note, tend to remain on the books of the banks until the securities are redeemed or until they are sold outside the commercial banking system. To meet legal requirements in connection with the new deposits, the banks must allocate a portion of their primary reserves; thus the previously existing excess or free reserves are reduced.

The primary reserves of the banking system, as well as the demand deposits on the books of the commercial banks, are likely to be increased by the amount of treasury borrowing when its securities are sold direct to the federal reserve banks; such sales, it will be recalled, were authorized by the act of March 27, 1942.⁸ When the Treasury spends the money so borrowed, the effect is precisely the same as when the federal reserve banks buy securities in the open market. In buying securities direct from the Treasury, the reserve banks merely credit the Treasury's deposit accounts for the amount of the purchase price. When the Treasury draws upon these deposits in meeting its expenditures, and when the checks so issued are deposited in the commercial banks and are cleared by them, the reserve accounts of the commercial banks are increased and the accounts of the Treasury are reduced. The demand deposit accounts created when the payees of the treasury checks deposit them with the commercial banks are likely to remain in existence so long as the federal reserve banks continue to hold the government securities.

Borrowing Policy in the War Period.—The application of the theory of treasury borrowing described in the foregoing paragraphs was frequently illustrated during the period of our participation in the Second World War. The Treasury constantly faced the need of borrowing to meet its huge war-time deficits, yet, at the same time, it wanted to keep in check all inflationary tendencies. Its objective, in short, was to obtain ample funds upon

⁸ See above, pp. 357-358.

favorable terms, while avoiding, as far as possible, the creation of new purchasing power in the form of demand deposits.

Thus the Treasury's unceasing campaign to promote the sale of its defense and war savings bonds was designed as a means of accomplishing this objective. The sale of savings bonds transferred purchasing power from the general public to the Treasury, thereby reducing, at least temporarily, the demand for consumption goods; yet the savings bonds could not be used in the expansion of bank credit, because they were made nonmarketable, ineligible for purchase by the commercial banks, and ineligible as collateral upon loans granted by the commercial banks.

Another means employed by the Treasury to raise funds while avoiding the expansion of bank demand deposits was the sale of tax savings notes which were offered to the public beginning in August, 1941. The notes were made especially attractive for wealthy individuals as well as for institutional taxpayers, as they could be used, at par value and accrued interest, to meet federal income, excess profits, estate, and gift taxes. They were made nonmarketable and ineligible for purchase by the commercial banks except for use in paying their own taxes. When taxpayers bought such notes in anticipation of future tax obligations, their purchasing power was reduced immediately rather than some months or years later through regular tax collections.

Again, the Treasury, beginning in May, 1942, opened its books for subscription to new long-term registered "tap issues" designed to accumulate investment funds from wealthy individuals and from such institutions as savings banks, trust companies, and insurance companies. The purchase of securities by such individuals and institutions, of course, results in no increase in demand deposits. "Tap issues" were made ineligible for purchase by the commercial banks for a period of ten years from the date of issue, and, in the meantime, they were to be treated as "ineligible assets" within the meaning of the banking statutes, that is, they were to be sold within a short time should they come into the possession of the commercial banks by ways other than purchase, as in their seizure upon default of loans.

A further means of avoiding the creation of new demand deposits in connection with its borrowing operations was the policy of the Treasury in strictly limiting the volume of new securities which could be bought by the commercial banks during the various war bond drives. In several drives, indeed, no securities whatsoever were made available for direct commercial bank buying, and, in others, only a minor fraction of total treasury offerings were made eligible for subscription by the commercial banks.

REPAYMENT OF INDEBTEDNESS

When the Treasury redeems obligations previously sold, the effects upon commercial bank primary reserves and demand deposits are exactly the converse of those which result from borrowing; the effects, that is to say,

depend upon the ownership of the securities at the time they are called for redemption. Here we allude to final redemption—which we may assume is made possible through surplus tax revenues—and not merely to refunding.

As the money to be used for redemption is raised by means of taxation, there is an initial decrease in both commercial bank reserves and demand deposits, for the taxpayers draw checks against the commercial banks payable to the Treasury. When the Treasury, in turn, draws upon its deposit accounts to redeem its outstanding obligations, (1) the primary reserves and demand deposits of the commercial banks are restored to the level which were obtained before the taxes were collected if the security holders are individuals and institutions other than the commercial and federal reserve banks, for they are likely to deposit the treasury checks in the commercial banks; (2) the primary reserves of the commercial banks are restored if they are the holders of the securities, but the reduction in demand deposits on account of the tax payments is permanent, for the reason that the redemption transaction as it affects the banks is merely one of switching assets—government bonds for primary reserves; and (3) the reduction in the primary reserves and the demand deposits of the commercial banks occasioned by the payment of taxes is permanent in the event that the government securities at the time of redemption are held by the federal reserve banks, for the redemption transaction in no way affects the commercial banks—the federal reserve banks merely cancel on their books an equal amount of assets and liabilities, namely, government securities against government deposits.

EXPENDITURE POLICIES

If we look at the Treasury's day-by-day operations in spending its funds for services, supplies, and the like, we are tempted to reach an immediate conclusion that mere spending offers little in the way of an instrument of monetary policy. It appears, at first glance, that we can have little to add to what has already been said regarding taxation policies and borrowing policies, because the money spent must previously have been raised—unless the government is to "turn on the printing press"—by taxation or borrowing.

But government spending need not be purely a matter of routine. While it is true that expenditure policies cannot be divorced from policies of taxation and borrowing, the fact remains that the Treasury can undertake to raise taxes or to borrow because it has already adopted a novel spending policy. In a period of depression, for example, the Treasury might be able to keep its budget in balance by cutting its expenditures drastically—but that might not evidence an intelligent expenditure policy; on the contrary, it might be the essence of wisdom for it to increase its expenditures greatly—to spend lavishly—with the objective of promoting an expansion of business activity. Many distinguished economists believe, indeed, that government spending can be made an instrument of monetary policy far more effective

than any other instrument hitherto applied by governments and central banks. Proposals for the planning of public works, plans for other kinds of "make-work" programs, proposals for the accumulation by the government of stocks of basic commodities, and the like—all such proposals place great confidence in the ability of the government to stimulate business activity through spending.

Proponents of the various government spending programs have in common the belief that only the federal government, among all our institutions, has the spending power sufficient to promote business expansion at a time when "lack of confidence" in the business community causes stagnation. No individual business enterprise can take the risk of expansion when all other enterprises are afraid to expand, and necessarily so, because the means at the disposal of the individual business enterprise, even if it is a "giant" corporation, are severely limited; but the means at the disposal of the government are not limited in the same way—it can spend vast sums of money for whatever projects it decides to undertake, and it can continue to spend lavishly for an indefinite period of time. To overcome the difficulties of periods of depression, therefore, advocates of government spending would have the Treasury raise great sums of money to be spent without delay for whatever kinds of projects might be quickly undertaken. Taxation as the source of the funds to be spent is generally rejected, as there appears to be no important advantage in the mere substitution of the government as spender for private spenders; however, the taxation of private purchasing power allowed to lie idle for long periods of time probably would not be amiss. Nevertheless, plans for government spending usually envisage the raising of money through money-creating channels, that is, by the sale of government obligations to the commercial banks or to the federal reserve banks, or even by the creation of printing-press money by the government itself; in this way, business expansion would be promoted, it is believed, not only through the stimulus of government buying, but also, simultaneously, by the "pumping" of hitherto nonexistent purchasing power into the hands of the public. In other words, the accumulation of idle private funds by taxation or by government borrowing and their expenditure by the government should be in itself a stimulus to business activity; but the expenditure of newly created money should be all the more stimulating since it would add to the available purchasing power in private hands.

Part VII

INTERNATIONAL PAYMENT

Foreign Exchange: Supply and Demand

Foreign Exchange: Means of Payment

Foreign Exchange Rates

Exchange Control

International Monetary Reconstruction

Chapter 29

FOREIGN EXCHANGE: SUPPLY AND DEMAND

The Nature of Foreign Exchange

FOREIGN EXCHANGE AND FOREIGN MONEY

The term *foreign exchange* has various meanings. Some think of it in a more or less abstract sense as a process of settling obligations between individuals and firms residing in different countries; others think of it as comprising the facilities available for the settlement of such obligations; and still others regard it simply as a synonym for transactions in foreign money. The acceptance of the term as synonymous with dealings in foreign money has much to commend it, for it implies an understanding of the facilities and procedures of international payment, while, at the same time, avoiding an atmosphere of mystery which other interpretations of the term seem to evoke. To a resident of the United States, the buying and selling of pounds, francs, Canadian dollars, bolivars, pesetas, pesos, and the moneys of all other foreign countries may be logically regarded as "foreign exchange." Thus one may "buy exchange on England," which is to say, buy pounds, shillings, and pence for dollars; and one may "sell exchange on Mexico" which means to sell pesos for dollars. Likewise, a dealer in "foreign exchange" is a person or firm which gives domestic money in buying foreign currencies and which sells foreign currencies for domestic money; and "foreign exchange instruments" are drafts, money orders, checks, letters of credit, and the like, by which foreign currencies are bought and sold.

Not every international commercial transaction requires the purchase or sale of a foreign currency. An American firm, for example, may sell a shipment of raw materials in England for sterling, and then use the sterling to buy finished goods there. In this instance, both an import transaction and an export transaction in foreign trade are completed, but there is no operation whatsoever in foreign exchange, for the conversion of dollars into sterling or sterling into dollars is unnecessary. Even when a foreign trade transaction is of such character that a conversion of one money into another is necessary, the conversion need not take place at the same time that the trade transaction is completed; many transactions in foreign trade are

arranged upon a credit basis, and payments may be made in the near or remote future.

DIFFICULTIES IN FOREIGN EXCHANGE

Many complexities arise in making payments across international boundaries—complexities which are absent in domestic financial negotiations. Even the arithmetic involved in converting dollars into a foreign currency such as British sterling, which is not based upon the decimal system, is the source of much confusion. The language difficulty is also frequently of importance. Again, variations in business customs, in types of documents used, in legal procedures, and in the content of court decisions all make for confusion in dealing in foreign exchange. Buyers and sellers of foreign currencies, moreover, usually demand special safeguards in view of the fact that disputes respecting the rights and duties involved in contracts may have to be settled in the courts of foreign countries.

Transactions in foreign exchange are especially subject to confusion when the normal mechanisms of the market have been modified and suspended, and when national governments have adopted policies of partially or completely controlling all aspects of such transactions. Governments, in exercising control, manage exchange rates, allocate supplies of foreign currencies to some importers and deny them to others, require exporters to sell to designated institutions whatever quantities of foreign currencies they may obtain, forbid the "nationals" of certain countries to draw upon balances held, and so on. In general, however, these regulations do not alter the procedure by which international payments are made, and thus the description of the framework of the foreign exchange market and the means of payment in this chapter and the one following is largely valid for both normal and abnormal times.

The Foreign Exchange Market

In the United States, no formal market for foreign exchange, in the sense of an organized stock or commodity market, exists; but buyers and sellers carry on negotiations with one another, either directly or through intermediaries, by means of personal contact, the telephone, the telegraph, and the mails. "Buyers and sellers" of foreign currencies cannot easily be distinguished from the intermediaries or middlemen, for many of the latter buy and sell foreign currencies in their own right, and not merely as agents or brokers. But we may think of "outside" buyers and sellers as those individuals, partnerships, and corporations which come into the market to buy and sell exchange because they are making payments to foreigners or are receiving payments from abroad. To the "outside" buyer or seller, the purchase or sale of foreign currencies is merely incidental to other business operations, such as the importation and exportation of merchandise, the

sale of domestic securities in foreign countries, and the purchase of foreign securities. On the other hand, financial institutions which serve as middlemen are interested in foreign exchange because the buying and selling of foreign currencies represent a major aspect of their business operations.

As thus distinguished, the principal middlemen include the foreign departments of commercial banks, domestic agencies of foreign banks, acceptance dealers, commercial bill brokers, and foreign exchange brokers.

FOREIGN DEPARTMENTS OF COMMERCIAL BANKS

The commercial banks (including private international banking houses) have been the principal middlemen in the foreign exchange market, and they continue to occupy the predominant position, although in many respects their freedom of action, in view of the government control to which we referred, has been severely curtailed. They may best be thought of as merchants who are able to sell foreign currencies because they have deposits in terms of such currencies with banks in other countries, and who are willing to buy because they must more or less continuously replenish their "stock in trade." Thus one does not ordinarily speak of "changing" American money for British money, but of "buying" British money with American money.

The foreign department of a bank is able to draw checks or drafts against the deposits it maintains with correspondent banks located in foreign countries, much in the same manner as an individual draws checks on his bank in his home country. People who have payments to make in foreign countries may buy the drafts, giving domestic money in payment, and the foreign department obviously can continue to sell drafts until its foreign deposits are exhausted.

Foreign Department's Supply of Foreign Currency.—The foreign department of an American commercial bank can obtain or replenish by four principal methods the foreign deposits against which it may sell drafts. The outstanding method is the purchase in the United States of instruments payable in foreign currencies. Such instruments are received or are drawn by American exporters in payment for commodities, securities, and services supplied to foreign importers, and they are sold to the American banks because the exporters want dollars rather than foreign funds.

The American bank may buy gold from the Treasury, ship it to a foreign country, sell it there, and have the proceeds credited to its foreign deposit account.¹ This method suggests the importance of gold when it is generally accepted as a means of international payments; to the extent that a country has gold which it is willing to export, and to the extent that

¹ The exportation of gold would actually be arranged and carried through by a federal reserve bank in accordance with the terms of the Gold Reserve Act of 1934. But if the foreign deposits established through the sale of gold abroad are made available to the commercial banks, the effect is the same as if the commercial banks managed the transaction themselves.

a second country is willing to buy it, no shortage of exchange in the first country on the second need occur.

Again, an American bank may increase its deposit in one foreign country by transferring to it deposits which it has in other foreign countries. Thus a bank which has deposits in Canada and England may find that there is only a small demand for sterling but a large demand for Canadian dollars; in such circumstances, it may draw a draft upon its British account, sell it to its Canadian correspondent, and receive the proceeds in Canadian dollars.

Finally, an American bank may borrow funds in a foreign country and have them credited to its account with its foreign correspondent bank. Such a loan may be negotiated direct with the foreign correspondent, or it may be obtained through the foreign money market. If, for example, an American bank wants to borrow in the British money market, it may ask its British correspondent to draw a time draft against it, to sell the bill in the money market, and to credit the proceeds to its deposit account. The buyer of the bill in the British money market would send it to the United States for acceptance by the American bank, and the latter, now provided with temporary funds in England, would merely have to pay it off at maturity.

Foreign and Domestic Correspondents.—The commercial banks which deal in foreign exchange have established an extensive network of correspondent institutions throughout the world. In some instances, banks operate branches in foreign countries and are therefore able to supply means of payment in those countries without outside assistance. More commonly, however, correspondent banks are employed. Generally speaking, the more foreign correspondents a bank has, the better are the services which it can provide for its customers; but it is not necessary for each bank to have a direct correspondent in every country on which it desires to sell exchange. In many cases, correspondents of correspondents are used. Thus if an American bank has a correspondent in London and no others, it may be able to sell exchange on Argentina, South Africa, Australia, and other countries by arrangement with the London bank. Were it to sell drafts, say, in Australian pounds, the Australian bank upon which the drafts were drawn would charge the London bank, which in turn would charge the account of the American bank.

Domestic correspondents are widely used to originate foreign exchange business. Connections with many domestic correspondents are particularly important in a country such as the United States, where thousands of banks have no direct foreign correspondents. Although most of the larger cities of the United States have at least one bank with a foreign department having its own correspondents abroad, people located in thousands of smaller communities would be denied easy access to the foreign exchange market were it not that banks in these communities buy and sell by arrangement with the city banks. In this way, the foreign exchange business of the

entire country is channeled into the larger banking institutions which have foreign connections.

OTHER MIDDLEMEN

The middlemen in the American foreign exchange market, other than the foreign departments of commercial banks, merit brief comment. Agencies of some foreign banks operate in the United States, principally in New York City, and their exchange business is much the same as that of the foreign departments of domestic banks. The banking laws of the state of New York do not permit such agencies to carry on a general banking business, but they are permitted to buy and sell international bills of exchange of various kinds, to issue letters of credit, and to transfer funds by drafts, cables, and other means.

Acceptance dealers, as we have seen,² buy acceptances and pass them on to other financial institutions which regard them as choice paper for secondary reserves. As a great volume of international trade is financed by means of bankers' acceptances, the function of dealers in maintaining an orderly market for acceptances is an important one.

Commercial bill brokers assist American exporters located in all parts of the country to dispose of drafts which they draw against foreign importers and foreign banks. Most of them have their headquarters in New York City. The exporters could ordinarily sell the drafts to their banks in inland cities, but they may feel that the New York market, being broad and dependable, will bring them a better price; hence they employ the bill brokers on a commission basis to act as their intermediaries in reaching that market.

The foreign exchange brokers, who work on a commission basis and not as dealers, bring buyers and sellers of exchange together. Since there is no exact uniformity in the rates charged for foreign currencies, an importer who has a large payment to make abroad, or an exporter who has received a large payment in foreign money, may well employ a foreign exchange broker to "shop around" among the banks to get the most favorable rate.

The Supply of and Demand for Foreign Currency

In the preceding division of this chapter, the statement was made that a bank is able to sell foreign currencies because it has deposits in foreign countries, and that it is able to replenish its deposits by various procedures. We were then considering the supply of and demand for foreign currency from the point of view of the individual bank; it is now desirable to look at supply and demand from the viewpoint of the United States as a whole. In a word, we want to know what types of international transactions in-

² See above, p. 272.

crease the total amount of foreign money available in the United States, and what types reduce it.

At the outset, a peculiarity of foreign exchange must be mentioned. Payments made by Americans to foreigners may not reduce the foreign balances of American banks, and payments made by foreigners to Americans may not increase them. The effect depends upon the currency in which payments are made. Thus an American firm in buying goods from a British firm may pay in sterling or in dollars, depending upon the terms of the contract. If payment is made in sterling, the normal effect is to reduce the balances held in Britain by American banks; but if payment is made in dollars, the effect is to increase the balances held by British banks in the United States. This example illustrates a general proposition: *payments made abroad by Americans decrease the foreign balances of American banks or increase the American balances of foreign banks; and payments made by foreigners to Americans decrease the American balances of foreign banks or increase the foreign balances of American banks.*

SHIPMENTS OF MERCHANDISE

The most obvious type of international transactions which affects the supply of and demand for foreign currency is the shipment of merchandise from country to country. When Americans import goods from foreign countries, they must make payment either in dollars or in foreign currencies, and when they export goods, they expect to be paid in dollars or in foreign currencies. If American importers pay in dollars, the foreign exporters convert the dollar instruments into their domestic currencies by selling them to their banks. In this way, in accordance with the proposition stated in the preceding paragraph, the dollar balances of foreign banks in the United States are increased. But if the American importers pay in foreign currencies, they must buy from American banks instruments of payment in terms of the foreign currencies, and the sale of these instruments reduces American bank balances abroad.

Shipments of merchandise include not only the importation and exportation of foodstuffs, raw materials, machinery, and similar goods, but also the precious metals, gold and silver. The effect of the shipment of gold and silver upon the supply of and demand for foreign currency does not differ from that which results from the shipment of any other type of goods. Though silver is used for monetary purposes by most countries of the world, at least as subsidiary coin, it is bought and sold on a merchandise basis, much like tin, copper, zinc, and other metals. Gold, because it has served as a universal monetary medium, may appear at first glance to be an exceptional kind of merchandise, but it is bought and sold internationally on the basis of weight and purity, and not according to the stamp of any national mint.

Gold as merchandise in international trade does have one important

peculiarity in that it is a type of merchandise in which the banks directly deal. Banks are concerned with the shipment of all other kinds of merchandise only because they are called upon to assist importers and exporters with financial arrangements, but they themselves are responsible for most of the international shipments of gold. Gold is a lever by means of which banks may adjust their foreign balances when they feel that the balances are disproportionately large or small in view of the prevailing demand for foreign currencies. Thus if an American banker has a large balance in London when there is but little demand for sterling, he may use some of the sterling to buy gold in England for shipment to the United States; or, on the other hand, if his London balance is too small to meet the demand of American importers for sterling, he may arrange to have gold shipped to London for sale to the Bank of England, and thereby have his sterling balance increased.⁸

It will be noticed that gold, like any other merchandise, satisfies our general proposition, namely, that its exportation from the United States has the effect either of increasing American bank balances in foreign countries or of reducing the balances held by foreign banks in the United States, and that its importation has the contrary effect.

SERVICE TRANSACTIONS

Many varieties of international commercial transactions, other than those which involve the movement of merchandise, affect the supply of and demand for foreign currency. Among these are the so-called "service transactions." An American exporter may have his goods shipped in vessels owned by foreign steamship companies, insured by foreign casualty companies, and sold abroad by a foreign agent. His payment of miscellaneous charges, fees, and commissions affects the supply of foreign currency in the same way that it is affected by payments by American importers of merchandise. If the exporter pays the expenses in dollars, the balances of foreign banks in the United States are increased; if he pays in foreign currencies, the foreign balances of American banks are reduced.

Similarly, a foreign tourist traveling in the United States will stop at American hotels, eat at American restaurants, buy supplies from American merchants, and employ the skill of American doctors, dentists, and barbers. For all these services, he must make payment ordinarily in dollars. If, before leaving for the United States, he converts the money of his homeland into dollars by the purchase of a draft upon an American bank, the foreign bank's balance in the United States is reduced; if he brings foreign currency with him and sells it to an American bank for dollars, the bank, in returning the currency to the foreign country, has its balance there increased.

⁸ See footnote on page 471.

The principal service transactions may be classified according to their effects upon the supply of and demand for foreign currency as follows:

Transactions which decrease American bank balances abroad, or increase foreign bank balances in the United States

1) The purchase by Americans of the services of foreign agencies, such as insurance companies, shipping lines, and banks.

2) The expenditures of American tourists traveling in foreign countries.

3) Contributions of Americans to foreigners, such as the sending of money by immigrants for the support of their dependents in their homelands, and the making of donations by Americans to foreign missions.

4) The payment of dividends and interest by American corporations and governments on American securities held by foreigners.

Transactions which increase American bank balances abroad, or decrease foreign bank balances in the United States

1) The purchase by foreigners of the services of similar American agencies.

2) The expenditures of foreign tourists traveling in the United States.

3) Contributions to Americans from abroad, such as the sending of money by Americans living abroad for the support of their dependents in the United States, and the making of donations by foreigners to American social agencies.

4) The payment of dividends and interest by foreign corporations and governments on foreign securities held by Americans.

CAPITAL TRANSACTIONS

The supply of and demand for foreign currency are also affected by all kinds of international capital transactions. These include the purchase of land, buildings, machinery, materials, and supplies in foreign countries for use there; the purchase of stocks of foreign corporations; the purchase of bonds, notes, and other debt instruments issued by foreign corporations and governments; and the reacquisition from foreigners of stocks, bonds, and other instruments previously sold to them.

An American firm setting out to establish a branch factory in Venezuela would very likely find it necessary to acquire currency of that country with which to buy a site for the factory and materials for the buildings. If it undertook no financing in Venezuela, the currency would have to be acquired through normal foreign exchange channels. Its purchases of raw materials and supplies and its pay roll requirements would have to be met in the same way, at least until the sale of its product would provide Venezuelan currency out of which the current costs of operations could be met. In a similar way, a wealthy Canadian who decides to buy a winter home in Florida must acquire American dollars with which to make the purchase; and an American who wants to buy British securities traded on the London Stock Exchange must buy sterling to make payment.

So it is, also, with all kinds of international long- and short-term lending. The granting of long-term loans by the purchase of bonds issued by foreign corporations and governments ordinarily requires the acquisition of the foreign currency so that payment may be made, and the same is true

of the purchase of short-term commercial paper sold in foreign money markets. Likewise, the withdrawal of foreign loans usually provides a supply of foreign currency. Before the inauguration of the American lend-lease program in the period of the Second World War, for example, the British government acquired dollars for the purchase of war supplies by seizing American securities held by its subjects and selling them in the American market.

The international capital transactions mentioned and illustrated in the preceding paragraphs may be classified as follows according to their effect upon the supply of and demand for foreign currency:

Transactions which decrease American bank balances abroad, or increase foreign bank balances in the United States

- 1) The purchase by Americans of land, buildings, and other physical property located in foreign countries.
- 2) The purchase by Americans of stocks of foreign corporations.
- 3) The making of long-term loans by Americans to foreigners, as in the purchase of bonds of foreign corporations and governments.
- 4) The making of short-term loans by Americans to foreigners, as in the purchase of short-term paper in foreign money markets.
- 5) The reacquisition by Americans of American property formerly held by foreigners, including land, buildings, and stocks.
- 6) The repayment by Americans of long- and short-term loans previously obtained from foreigners.

Transactions which increase American bank balances abroad, or decrease foreign bank balances in the United States

- 1) The purchase by foreigners of land, buildings, and other physical property located in the United States.
- 2) The purchase by foreigners of stocks of American corporations.
- 3) The making of long-term loans by foreigners to Americans, as in the purchase of bonds of American corporations and governments.
- 4) The making of short-term loans by foreigners to Americans, as in the purchase of short-term paper in the American money market.
- 5) The reacquisition by foreigners of foreign property formerly held by Americans, including land, buildings, and stocks.
- 6) The repayment by foreigners of long- and short-term loans previously obtained from Americans.

TRANSACTIONS HAVING NO EFFECT UPON SUPPLY AND DEMAND

The supply of and demand for foreign currency, it must be emphasized, are not necessarily affected by every commercial transaction between residents of different countries, whether of the merchandise, service, or capital classification. A Canadian manufacturer who sells merchandise in the United States for American dollars, for example, may decide to invest the proceeds of his sales in the stocks of an American corporation; in this way, the supply of Canadian currency held by American banks, and the supply of American currency held by Canadian banks, would not be disturbed. Similarly, when an American corporation calls its bonds for redemption, the foreign holders may decide to reinvest in other American securities. Again, a foreign holder of American securities may decide to come to the United

States as a tourist and spend here the dollars he receives as interest and dividends.

The Balance of Payments

In view of the foregoing discussion, one may readily conclude that numerous types of merchandise, service, and capital transactions give Americans claims for payment against foreigners; and that similar transactions call for payments by Americans to foreigners. From the point of view of the American people, all transactions which require payments by foreigners to Americans are labeled "exports" or "credits"; and all transactions which require Americans to make payments to foreigners are called "imports" or "debits." The use of the terms *export* and *import* are well understood in reference to movements of merchandise, but care must be exercised in extending their use to the "invisible" items, namely, the service and capital transactions. In the case of capital transactions, however, one may conveniently follow the movements of stock certificates, debt instruments, and similar documents to determine whether or not a transaction is an import or an export. Thus the receipt in the United States of stock certificates of foreign corporations is properly thought of as an import or debit, since the transaction requires payments by Americans to foreigners.⁴ Similarly, one may think of the "importation" of services, as when Americans are called upon to make payments for the transportation of merchandise on foreign ships and for tourist expenditures incurred in foreign countries.

A comprehensive summary of all transactions, both visible and invisible, which require payments by Americans to foreigners and by foreigners to Americans is prepared annually by the federal Bureau of Foreign and Domestic Commerce. Table 39 presents such a summary for the year 1940, the last full year before our entrance into the Second World War. Although the statement is not presented in the familiar form of the balance sheet of a business concern, one will immediately note that the total of the "plus items," that is, the net credits, is equal to the total of the "minus items," that is, the net debits. The large figure for "other transactions and residual" need not be the source of misgivings; this item merely reflects the sheer incapacity of a research agency, even one so competent as the Bureau of Foreign and Domestic Commerce, to trace precisely all the transactions which give rise to debits and credits in our international accounts.

The equality of debits and credits in the balance of payments is explained by the fact that a net debit or credit in any group of accounts, such as the merchandise and service accounts, must always be offset by net credits

⁴ Unfortunately, the accepted terminology here is much confused. Though the purchase of foreign stocks is labeled an import, because, like the importation of merchandise, it requires a payment to foreigners, such a transaction is often also spoken of as a "capital export" because capital is made available to foreigners. To avoid confusion, however, it is well to remember that the true "capital export" is really a merchandise export—the sending out of machinery and equipment whose purchase by foreigners may have been made possible by the previous purchase of foreign securities by investors residing in the exporting country.

or debits in other items, as in gold movements or in the capital accounts. Suppose, for example, that a country has a "favorable" or "active" balance in the merchandise, service, and capital accounts—excluding from the capital accounts movements of short-term banking funds and of paper currency—

TABLE 39

THE BALANCE OF INTERNATIONAL PAYMENTS OF THE UNITED STATES
IN 1940

(In millions of dollars)

	<i>Receipts from foreigners for "exports" (credits)</i>	<i>Payments to foreigners for "imports" (debits)</i>	<i>Net credits (+) or debits (-)</i>
Trade and service items:			
Merchandise.....	4,021	2,625	+ 1,396
Merchandise adjustments.....	68	44	+ 24
Freight and shipping.....	186	259	- 73
Travel expenditures.....	93	223	- 130
Personal remittances.....	35	118	- 83
Institutional contributions.....	—	54	- 54
Interest and dividends.....	525	195	+ 330
Government transactions.....	32	123	- 91
Miscellaneous services.....	89	63	+ 26
Total trade and service items.....	5,049	3,704	+ 1,345
Gold and silver:			
Gold exports and imports.....	5	4,749	- 4,744
Gold earmarking operations (net).....			+ 645
Gold movements (net).....			- 4,099
Silver exports and imports.....	4	59	- 55
Total gold and silver movements (net).....			- 4,154
Capital items (net):			
Long-term capital movements.....			- 39
Movement of short-term banking funds.....			+ 867
Special transactions of belligerent governments.....			+ 630
Miscellaneous capital items.....			- 1
Paper currency movements.....			+ 35
Total capital items.....			+ 1,492
Other transactions and residual*.....			+ 1,317

* Consists primarily of unrecorded capital transactions, although it may also include errors and omissions in other transactions.

Source: United States Bureau of Foreign and Domestic Commerce, *The Balance of International Payments of the United States in 1940*, p. vi.

of \$600,000,000. Immediately the question arises regarding the manner in which the net obligations of foreigners totaling \$600,000,000 were settled, for it is obvious that in international transactions, as in domestic operations, merchants and others do not sell their merchandise, services, and the like without receiving something in return. Perhaps the foreigners met all or

a portion of their net obligations by shipping gold (and possibly silver) to the creditor country, and perhaps the creditor country was willing to accept a moderate amount of the paper money of the debtor countries. If we suppose that net imports of the precious metals and of foreign paper currencies into the creditor country amounted to \$350,000,000, we would still have \$250,000,000 to account for. Where would we be likely to find it? The answer is that we would probably find a net short-term capital import in the form of bank balances amounting to \$250,000,000, that is to say, we would very likely discover that there had occurred a net increase in bank balances held abroad by banks of the creditor country and a net decrease in balances held by foreign banks in the creditor country totaling that sum.

In terms of our discussion in earlier sections of this chapter of the effects upon bank balances at home and abroad brought about by the settlement of the various kinds of international commercial transactions, the significance of changes in bank balances in providing a means of bringing the balance of payments into equilibrium should be clear. If we exclude the movements of paper currency because they are usually of minor volume, we can say that the principal "balancing items" in the balance of payments are movements of the precious metals and movements of short-term banking funds. Indeed, disequilibriums in the balance of payments are ordinarily reflected first in changes in banking balances, and it is only when such balances have grown disproportionately large or small that banks, as we have seen, decide to arrange shipments of gold to adjust their international accounts.

Chapter 30

FOREIGN EXCHANGE: MEANS OF PAYMENT

The financial settlement of international merchandise, service, and capital transactions may be arranged in numerous ways, and the means selected in each instance depends upon the terms agreed upon by buyer and seller, borrower and lender, or debtor and creditor. A foreign exporter may ship goods to an American importer and allow the latter sixty days in which to make payment; on the other hand, an American investment banking house may sell securities to a foreign capitalist only on terms of immediate cash payment. Whatever the terms of the transaction, however, facilities are normally available through which arrangements may be made to satisfy them.

In the first place, we shall examine the mediums which may be employed in making immediate international cash payment, including the following: (1) gold and paper money, (2) bankers' sight drafts, cables, and telegraphic transfers, (3) personal checks, (4) cash letters of credit, (5) travelers' letters of credit, (6) travelers' checks, and (7) international money orders.

Means of International Cash Payment

GOLD AND PAPER MONEY

The role of gold in foreign exchange has already been mentioned. If gold were available to everybody having payments to make in foreign countries, and if he had the facilities for handling it, it could be used for most types of international payments. Even when gold is freely obtainable, however, most people who have foreign payments to make prefer to leave to the banks the task of importing and exporting it. Hence it may be said that gold is used as a means of international cash payment only by banking institutions, and that they ship it from country to country, not so much to make payments, as to replenish or decrease their balances with foreign banks.

The paper money and subsidiary coins of one country are often acceptable in other countries, especially for the settlement of small transactions. Tourists who travel in foreign countries often find that the money of their home countries is acceptable at hotels, restaurants, and other business

places. Thus American tourists are usually able to spend their domestic dollars without difficulty in most parts of Canada, and Canadian money is generally acceptable at least in the American border cities. Nevertheless, the great volume of international payments could not be settled upon a paper-money basis.

BANKERS' SIGHT DRAFTS, CABLES, AND TELEGRAPHIC TRANSFERS

Bankers' sight drafts represent the most important single medium by which international cash payments are made, and they can be obtained for any sum regardless of size. Such a draft is an order drawn by a bank upon its correspondent bank located in a foreign country to pay a specific sum of money on demand to bearer or to the order of a designated payee. The bank is able to issue the draft because it maintains a deposit with the foreign bank upon which it is drawn; hence the draft is similar in all essential respects to a check drawn by an individual upon his bank at home. Bankers' sight drafts are sold for domestic currency at the particular rates at which the domestic banks are willing to dispose of their foreign deposits.

Though we speak of a banker's sight draft as a means of immediate payment, one must remember that payment is delayed during the time that the draft is in transit. Thus if the mail time between two countries is ten days, a person who has a cash payment to make on a particular day would have to purchase the draft at least ten days before.

A cable may be described as a banker's sight draft which is sent by wire rather than by mail. The cable is sent in code by the domestic bank to its foreign correspondent ordering the latter to pay out of the former's deposit a specific sum of money to the payee designated by the buyer of the cable. The buyer pays the cable rate, which is usually slightly higher than the rate charged for bankers' sight drafts, and in addition he bears the expense of sending the cable; but the additional cost may be inconsequential to a person who must make payment more quickly than would be possible by mailing a banker's sight draft.

Between countries not separated by oceans, telegraphic transfers take the place of cables as means of immediate payment.

PERSONAL CHECKS

Personal checks have become increasingly important, in recent years, as mediums of international cash payment. Here, of course, we speak of ordinary checks such as individuals and firms draw upon their local banks in meeting domestic obligations. Between countries whose political and business relations are of an excellent quality, as the United States and Canada, personal checks are commonly accepted. An important business corporation which enjoys a world-wide reputation will ordinarily find its personal checks accepted without hesitation in all parts of the world. And governments and corporations, in paying dividends on stock and interest on registered bonds,

usually send checks to the foreign as well as to the domestic holders of their securities.

An American who receives a personal check drawn upon a bank located in a foreign country would normally sell it to his own bank for dollars, and the latter would send it to its correspondent in the country where it originated. There it would be presented for payment to the drawee bank, and the correspondent would credit the account of the American bank.

CASH LETTERS OF CREDIT

A cash letter of credit is an instrument issued by a bank to authorize a designated party to draw a check or draft upon it for a specified sum of money payable on demand. It can be used as a means of international cash payment when, for example, an importer refuses to pay for merchandise until it has left the exporter's country, and, at the same time, the exporter refuses to ship the merchandise until he is assured of immediate payment. To illustrate, let us suppose that an American importer is buying broadcloth from a British firm at a price of \$10,000. The American importer could, of course, obtain a domestic instrument for that amount, but he does not want to make payment until the goods have left the hands of the British exporter; and the latter, in turn, is not willing to trust the American importer's unsupported promise to pay. In these circumstances, the American importer could obtain a cash letter of credit from his bank and send it to the British exporter, who should then be willing to ship the goods since, in effect, he has a deposit with an American bank against which he is authorized to draw. He would ship the goods, draw the draft, and sell it to his bank for sterling; and the British bank would send it to its American correspondent bank which would collect from the American issuing bank and credit the deposit balance of the British bank. The American importer would be protected by a stipulation in the letter of credit making the draft payable only if accompanied at the time of presentation by a bill of lading giving title to the broadcloth.

TRAVELERS' LETTERS OF CREDIT

A traveler's letter of credit is a variant of the cash letter. It authorizes the person to whom it is issued to draw demand drafts on the issuing bank by presenting it to the bank's correspondents in foreign countries. The total amount that may be drawn is specified, as well as the time limit within which the drafts will be acceptable. Travelers' letters of credit provide a convenient means of payment for those who must spend relatively large sums while traveling in foreign countries. Buyers for department stores, for example, may not know at the time of their departure the prices or the quantities of the goods that they will buy in various countries from individual sellers. As purchases are made, therefore, the drafts for the necessary payments can be drawn under the letter of credit.

The bank from which a traveler's letter of credit is obtained notifies its foreign correspondents of the issuance of the letter, giving its number, the date of issue, the amount involved, and the name of the purchaser or beneficiary. Travelers' letters issued by American banks authorize the drawing of dollar drafts.

The traveler carries with him a letter of identification which bears his signature, and he presents this together with the letter of credit to the foreign correspondents when he wants to draw drafts. The teller of a correspondent bank, after assuring himself of the genuineness of the letter of credit, requires the traveler to draw the draft in his presence and compares the signature on the draft with that in the letter of identification. If fully satisfied with the evidence, the correspondent bank buys the draft in terms of its own currency at its buying rate for demand drafts on the country in which the letter was issued. Finally, the teller of the correspondent bank notes on the letter of credit the name of the bank, the amount of the draft it is purchasing, and the date, as notification to other correspondents that the full amount of the letter of credit is no longer available for drawing. A correspondent which buys a draft that exhausts the letter of credit returns the letter to the issuing bank.

In buying a traveler's letter of credit, the beneficiary may be required to pay for it immediately at full face value so that the issuing bank is fully protected. The bank, in this case, not only earns the commission charged but also has the use of the funds until such time as the drafts come through from foreign correspondents for payment. Sometimes the arrangement between the issuing bank and the beneficiary merely calls for the charging of the latter's deposit account as the drafts are presented for payment. Because the bank, in this instance, does not have temporary use of the funds involved, it is likely to charge a larger commission than that charged on cash contracts.

TRAVELERS' CHECKS

A traveler's check is an order drawn by a bank upon itself by which it obligates itself to pay a specific sum of money on demand to the order of the party whose name is written thereon. Travelers' checks are intricately engraved and are printed upon paper specially processed for the avoidance of counterfeiting. In the United States, such checks are issued by many of the larger metropolitan banks and by the American Express Company in round amounts ranging upward from five dollars. The buyer of the checks writes in his own name as payee, and he is required to countersign them when he uses them in making payments. Banks, transportation companies, hotel managers, and others who cash travelers' checks are usually satisfied with a comparison of the two signatures as a sufficient identification of the person who offers them.

A person who buys travelers' checks in the United States pays for them

immediately at full face value, and adds a commission, which is usually .75 per cent. Thus the issuing bank not only earns the commission but also has the use of the principal from the time of issue until the time of redemption. The interest which the bank is able to earn upon the principal may be substantial, for several weeks or months may elapse before many of the checks will be presented to the bank for payment.

Rarely does the holder of travelers' checks have difficulty in passing them as a means of payment, either in the United States or abroad. They are accepted not only by banks, but also by railroad companies, hotels, and merchants and other businessmen. In the United States, they are generally accepted at full face value; and in foreign countries, they are purchased by banks in terms of foreign currencies at their current buying rates for dollar instruments payable on demand. A foreign bank which buys travelers' checks from American tourists sends them to its American correspondent which, in turn, presents them to the issuing bank for payment. The payment is then credited by the American correspondent to the dollar deposit account of the foreign bank.

INTERNATIONAL MONEY ORDERS

Both the United States Post Office Department and the American Express Company issue money orders¹ for use in making payments in foreign countries. Post offices in all parts of the country are authorized to sell international money orders, which are payable in most of the countries with which we maintain diplomatic and commercial relations. The maximum allowed for each order is \$100, but any number of orders may be bought at the same time. The buyer pays a commission of ten cents for each ten dollars or fraction thereof. In respect to only a few countries are the orders issued in terms of foreign currencies; in respect to all others, they are payable in dollars. International money orders payable in dollars are likely to be inconvenient in certain kinds of transactions because the buyer does not know exactly the amount of foreign currency his dollars will bring—that depending upon the conversion rate used by the foreign post office or other foreign correspondent agency. In most instances, the international orders are transmitted direct by the Post Office Department to the foreign post offices or agencies, and the latter notify the payees.

The services of the American Express Company in supplying international money orders are superior to those of the Post Office Department in several respects. In the first place, the American Express Company usually undertakes to make available orders on more countries than does the Post Office; second, more of its orders are payable in foreign currencies; and third, the commission charged on large orders is smaller than that of the Post Office.

¹ It should be noted that bankers' sight drafts are also often referred to as "money orders."

Deferred International Payment

Not all international commercial transactions are settled by immediate cash payment. Though most of the service and capital transactions are so completed, many international shipments of merchandise are arranged on terms which permit the postponement of payment for a period of time. Many exporters of goods to foreign countries are quite willing to sell "on time," but generally they demand special safeguards not required in domestic trade. Deferred payment may be arranged by the use of book accounts, promissory notes, commercial letters of credit, and trade drafts.

Book accounts and promissory notes give the exporter no special protection, for their status in international transactions is much the same as in domestic commerce. Only individuals and firms of the highest credit standing can expect, therefore, to be able to buy on the basis of book accounts and promissory notes. As a matter of fact, promissory notes are rarely used, but book accounts have gained a position of prominence, especially in transactions between firms located in countries which have excellent commercial relations. Thus Canadian firms often sell to American firms on book account, and American firms do likewise.

The book account and the promissory note are not means of payment but means of deferring payment. When the credit period has elapsed, the importer must make payment by using one of the cash instruments we have discussed. Thus if a Canadian exporter sells a shipment of goods for \$10,000 Canadian on a sixty-day account to an American firm, the latter must arrange for a cash payment at the expiration of the sixty days—and for this purpose, it would very likely buy a banker's sight draft payable to the Canadian exporter.

The commercial letter of credit and the trade draft, on the other hand, may be used simultaneously as a means of deferring payment and as a means of final payment. In other words, an importer or other debtor, at the expiration of an allowed credit period, may not have to make special arrangements to pay the foreign exporter or creditor.

COMMERCIAL LETTERS OF CREDIT

A commercial letter of credit may be defined as an instrument issued by a bank at the request of one party authorizing a second party to draw a draft against the bank for a designated sum payable at a specified time. It will be seen that this definition fits the cash letters of credit and the travelers' letters we have already examined; they are, therefore, properly classified as types of commercial letters. At this time, however, we shall confine our attention to commercial letters which authorize second parties to draw drafts payable in the future rather than on demand.

The bank which grants a letter of credit is known as the "issuer"; the party who applies for the letter is called the "opener"; and the party to

whom it is addressed is designated the "beneficiary." The issuing bank is said to "open an acceptance credit." In some instances, the opener may also be the beneficiary; however, in the most common use of commercial letters of credit, whereby a bank in the importer's country underwrites the financing of an import transaction, the opener is the importer, and the beneficiary is the foreign exporter. Nevertheless, many variations in arrangement are possible, and some of these are discussed in the following sections of this chapter.

Letter of Credit Issued by the Importer's Bank.—For the sake of clarity, we may best employ concrete illustrations in showing some of the uses of commercial letters of credit. Let us suppose, first of all, that an American firm is buying \$10,000 worth of goods from a British exporter, and that the terms of the contract require the American firm to obtain a commercial letter of credit from an American bank authorizing a draft at sixty days' sight. The procedure may be described as follows:

- 1) The American importer applies to his bank (American Bank A) for the letter of credit in favor of the British exporter. In issuing the letter, American Bank A requires the importer to sign a contract agreeing to provide it with the funds to meet at maturity the draft to be drawn.

- 2) The American importer sends the letter of credit to the British exporter. (Here the procedure may vary. American Bank A may send the letter direct to the British exporter; or it may cable advice to its British correspondent bank that the letter of credit has been opened in favor of the British exporter.)

- 3) The arrival of the letter of credit assures the British exporter that he will be paid for his goods, since he is able to rely upon the obligation of American Bank A which, we may presume, has an established international reputation. He therefore delivers the goods to the shipping company and obtains a bill of lading which is a document of title. He draws the draft upon American Bank A and takes it, together with the bill of lading, the letter of credit, and other required documents, to his own bank. As the letter of credit informs the British bank that the exporter has the right to draw the draft, it will not hesitate to participate in the transaction. The exporter may ask the bank to send the draft to the United States for acceptance by American Bank A and for collection sixty days later; but, more likely, he will request the bank to buy the draft and give him the proceeds in sterling. We may, therefore, assume that the British bank buys the draft.

- 4) The British bank now sends the draft with all documents attached to its American correspondent bank (American Bank B).

- 5) American Bank B presents the draft and documents to American Bank A, and the latter, if satisfied that the terms of the letter of credit have been fulfilled, writes its acceptance across the face of the draft and returns it to American Bank B. In accepting the draft, American Bank A detaches the documents. The letter of credit, having done its work, is filed away;

and the bill of lading and other documents are likely to be surrendered to the importer. Although the importer will have approximately sixty days in which to make payment, it is desirable that he should be able to obtain the goods immediately from the shipping company—which, of course, he can if he has the bill of lading. The sale of the goods will presumably provide the funds which will enable the importer to pay the bank. To protect itself, American Bank A requires the importer to sign a *trust receipt* which retains the bank's title to the goods and legally obligates the importer to use the proceeds of their sale in meeting his obligation to the bank.

6) American Bank B, meanwhile, may hold the accepted draft—now a *banker's acceptance*—until maturity or may sell it in the American money market, depending upon the instructions it receives from the British bank, which, of course, owns the acceptance. If the British bank is in no immediate need of dollars, it may instruct American Bank B to hold the draft till maturity, and it will then earn the full discount charged the British exporter less whatever service fees it may pay American Bank B. On the other hand, if it wants to build up its American dollar balance immediately, the British bank may order American Bank B to sell the acceptance in the American money market and credit the proceeds to its account. In the money market, American Bank C may buy the acceptance for inclusion among its secondary reserve assets.

7) Before the maturity of the acceptance, the American importer pays \$10,000 plus commissions to American Bank A, which is thus supplied with funds to meet the acceptance when it is presented for payment by American Bank B or American Bank C, as the case may be.

Features of Acceptance Credits.—Certain observations respecting the illustration detailed in the preceding paragraphs may be expressed. It is important to notice, in the first place, that American Bank A, the issuer of the letter of credit, does not make a loan to the importer or to anyone else. At no time is it out of funds. It merely agrees to accept the draft in the place of the American importer, and thus we say that it is *lending its good name*. Sometimes, it is true, accepting banks buy their own acceptances in the money market—in which case, they are in all essential respects making loans to the openers of their letters of credit.

In accepting, American Bank A makes itself primarily liable upon the instrument, and it would be required to meet it at maturity though the importer might default upon his obligation.

The importer is the recipient of a loan or credit, since he is able to obtain the goods approximately sixty days before he pays for them, yet the British exporter receives payment as soon as he sells the draft to his bank. Obviously, then, the British bank is granting the loan or credit to the American importer so long as it holds the draft and so long as American Bank B holds the acceptance in its name. If the acceptance is sold in the American money

market, the buyer there (American Bank C) becomes a lender to the importer.

Finally, it will have been observed that no international payment is necessary at the maturity of the acceptance—a fact which justifies our statement that the commercial letter of credit may be used simultaneously as a means of deferring payment and as a means of final payment. It is true, of course, that a conversion of currencies takes place at the time that the British bank buys the dollar draft for sterling; but the conversion is effected long before maturity.

Letter of Credit Issued by the Exporter's Bank.—The exporter's bank may assist in financing the exportation of merchandise by issuing a commercial letter of credit direct to the exporter at his request; such an arrangement is convenient when the exporter wants to have funds available while awaiting payment from the foreign importer. It may be that no bank in the importer's country issues letters of credit, or, if they are obtainable, there may be some misgivings as to their quality. At any rate, the foreign importer has no part in the contract between the exporter's bank and the exporter.

Suppose, for example, that an American exporter is sending a shipment of goods to a Colombian importer at a price of \$5,000. The terms of the contract call for the drawing of a trade draft at sight against the Colombian importer with bill of lading and other documents attached. This means that the Colombian importer must accept and pay the trade draft before the bill of lading is surrendered to him. While awaiting payment for the goods shipped, the American exporter may need other funds immediately to carry on his customary operations. The procedure would be as follows:

- 1) The American exporter delivers the goods to the shipping company and obtains a bill of lading, after which he draws the trade draft upon the Colombian importer. He attaches the bill of lading and other required documents to the draft, takes them to his bank, and asks it to send them to Colombia for collection. At the same time, he asks the bank to permit him to draw a draft against it for \$5,000 payable at such time as the payment from Colombia is expected to come through. The bill of lading, which is in the possession of the bank, is security for the transaction but additional security may be required. If the letter of credit is issued, the American exporter draws the draft, and the bank accepts it, sells it in the American money market, and gives the exporter the proceeds.

- 2) The American bank sends the trade draft and documents to its Colombian correspondent, and the latter presents the draft to the Colombian importer for payment. If he pays, the bill of lading and other documents are released to him.

- 3) Since the trade draft is payable in dollars, the Colombian importer would be likely to pay it by buying a banker's sight draft on a bank in the United States for \$5,000. When this is received from the Colombian corre-

spondent of the American issuing bank, the latter has the funds with which to pay off its acceptance at maturity.

Letter of Credit Obtained by the Importer from a Bank in Exporter's Country.—In the foregoing illustration, the American exporter might have been willing to allow the Colombian importer sixty days or some other period of time in which to make payment had the latter been able to obtain a commercial letter of credit of satisfactory quality. Although the American exporter would probably not be willing to draw a draft against a Colombian bank payable in pesos, he would be willing to draw against an American bank at sixty days' sight if the draft were payable in dollars. Hence the Colombian importer might arrange the financing if his own bank in Colombia were able to obtain a letter of credit from an American bank. The procedure would be as follows:

- 1) The Colombian importer asks the Colombian bank to arrange for the issue of a letter of credit by an American bank (American Bank A) to the American exporter. The Colombian importer, at the same time, enters into a contractual agreement with his bank to make payment within approximately sixty days.

- 2) The Colombian bank asks American Bank A, its correspondent, to issue the letter of credit, at the same time agreeing to provide American Bank A with \$5,000 plus commissions before the maturity of the draft, which is to be drawn by the American exporter.

- 3) Assuming American Bank A's willingness to participate in the transaction, it issues the letter of credit to the American exporter.

- 4) The American exporter, now having full assurance as to payment, delivers the goods to the shipping company and obtains from it a bill of lading. He draws the draft, attaches the bill of lading, the letter of credit, and other documents, and, let us say, discounts the draft at his bank (American Bank B) and receives the proceeds.

- 5) American Bank B, now the owner of the draft, presents it to American Bank A for acceptance, at the same time surrendering the bill of lading and other documents. American Bank B may hold the acceptance till maturity and thereby finance the export shipment, or may sell it in the American money market, in which case the buyer there would finance the transaction.

- 6) Meanwhile, American Bank A sends the bill of lading and other documents to the Colombian bank; these are released to the Colombian importer in exchange for a document of title similar to a trust receipt.

- 7) The Colombian importer is obligated to pay the Colombian bank (in pesos, it is likely) according to the terms of the original contract; and the Colombian bank, in turn, must pay American Bank A \$5,000 plus commissions before the maturity of the latter's acceptance.

Letter of Credit Issued by a Bank in a Third Country.—A shipment of goods from one country to a second may have for its financial basis an

acceptance credit granted by a bank in a third country. To illustrate this type of arrangement, let us suppose that a Colombian importer is buying a shipment of goods from a Canadian exporter. We may assume that the Canadian exporter would not be willing to draw a trade draft upon the Colombian importer, or to draw under a commercial letter of credit issued by a Colombian bank; and we may further assume that no Colombian bank has a correspondent in Canada, and thus cannot easily have a Canadian letter of credit issued. Under the circumstances, the parties decide to draw the contract in terms of American dollars, and the Colombian importer is required to obtain a letter of credit from an American bank in favor of the Canadian exporter. The steps by which the transaction would be completed are the following:

- 1) The Colombian importer requests the Colombian bank to have its American correspondent (American Bank A) issue the letter of credit.

- 2) American Bank A, in complying with the request of the Colombian bank, issues the letter of credit direct to the Canadian exporter.

- 3) The Canadian exporter, upon receiving the letter of credit, delivers the merchandise to the shipping company, obtains a bill of lading, draws the draft, and takes all documents to his Canadian bank. As the draft is drawn in terms of American dollars, we may assume that the Canadian exporter sells it to his bank for Canadian dollars.

- 4) The Canadian bank sends the draft and documents to its American correspondent (American Bank B).

- 5) American Bank B presents the draft and documents to American Bank A, and the latter accepts the draft and detaches the documents. American Bank B may hold the acceptance till maturity or sell it immediately in the American money market, depending upon the instructions of the Canadian bank, the owner of the acceptance. In either case, American Bank B credits the deposit account of the Canadian bank when the proceeds are received.

- 6) American Bank A sends the bill of lading and other documents to the Colombian bank, and the latter surrenders them to the Colombian importer on immediate cash payment or on the security of some document of title against a future payment, according to the terms of the original agreement between the bank and the importer.

- 7) The Colombian bank must remit payment to American Bank A to provide it with funds to pay off the acceptance at maturity.

If the Canadian bank were to authorize American Bank B to sell the acceptance in the American money market, the buyer there would really be financing the shipment of merchandise between Canada and Colombia. This fact illustrates how it has been possible for London and New York to serve as international money markets—how it has been possible for British and American bankers to finance shipments of merchandise in which British and American firms have had no part either as importers or exporters. The

pound and the dollar have been highly regarded in all parts of the world, and importers and exporters in most countries have generally been willing to transact their business in terms of those monetary units when their own currencies could not be used. Thus countries which enjoy international commercial relations of only a meager volume have usually found it necessary to maintain banking connections (except, of course, in times of beligerency) with London or New York or with both.

Acceptance Credits to Create Dollar Exchange.—All the uses of commercial letters of credit which have thus far been illustrated involve the opening of acceptance credits for the movement of merchandise between countries. Banking authorities in the United States and elsewhere have generally insisted that bankers' acceptances be used only in self-liquidating transactions, whereby the sale of goods provides the funds with which the acceptances may be paid off. But one use of acceptance credits not necessarily self-liquidating in character is sanctioned by law in the United States; this is the employment of bankers' acceptances "to create dollar exchange." Banks are permitted to grant acceptance credits to create dollar exchange because such credits enhance the position of the dollar as an international medium of exchange. In a word, if New York is to be an international money market worthy of the name, foreign banks must be enabled to build up sufficient balances in the United States to be in a position at all times to sell dollar instruments.

The major countries with which the United States carries on trade relations ordinarily need no special assistance in acquiring dollar balances; but the less important countries, whose exports to the United States may be seasonal or otherwise sporadic, might at various times during the year find themselves without dollar balances—and acceptance credits are designed temporarily to alleviate such deficiencies. Thus the independent republics of Central America may build up sizable dollar balances in the United States during the seasons when they are selling fruit and other commodities to us, but at other times the dollar balances may vanish. Hence the acceptance credits are supposed to take care of the off seasons for such countries. American national banks are permitted to create dollar exchange by means of acceptance credits only for the countries, territories, and dependencies of Latin America, and for Australia, New Zealand, and the Dutch East Indies.

To illustrate the manner in which dollar exchange is created, let us suppose that a Nicaraguan firm has a payment of \$20,000 to make in the United States, but the Nicaraguan bank has no dollar balance with its correspondent here against which it could issue a banker's sight draft. But it has a standing arrangement with the American correspondent for the creation of dollar exchange. The procedure would be as follows:

- 1) The Nicaraguan bank gives the Nicaraguan firm a banker's sight draft on its American correspondent for \$20,000. At the same time, it draws a time draft for the same amount against the American bank.

2) The Nicaraguan firm sends the banker's sight draft to its American creditor; and the Nicaraguan bank sends the time draft direct to its American correspondent. Presumably, both instruments will go by the same mail and will arrive in the United States simultaneously.

3) The American correspondent bank accepts the time draft, sells it—now a banker's acceptance—in the American money market, and credits the proceeds to the account of the Nicaraguan bank. Whoever buys the acceptance, it is obvious, is really making a loan to the Nicaraguan bank. At any rate, when the banker's sight draft is presented for payment by the American payee, the Nicaraguan bank has a sufficient balance to meet it.

4) To complete the transaction, the Nicaraguan bank must supply its American correspondent with \$20,000 before the maturity of the acceptance. If, in the meantime, Nicaraguan exporters have been selling fruit and other commodities in the United States, the task of providing dollar "cover" should not be difficult. The Nicaraguan exporters would be receiving payment in dollar instruments which they would sell to the Nicaraguan bank. And the Nicaraguan bank would send these to its American correspondent for collection and credit to its account.

Types of Letters of Credit.—A commercial letter of credit may be *revocable* or *irrevocable*. When a bank issues a revocable letter of credit, it may cancel the letter before the authorized draft is presented for acceptance. Thus if some event occurs which endangers the position of the bank, it may escape its obligation to accept. Because of their weakness, revocable letters may not be acceptable to foreign exporters, and foreign banks may refuse to buy drafts drawn under them. Irrevocable letters, on the other hand, obligate the issuing bank to accept the authorized draft so long as the terms of the letter are fulfilled. A beneficiary, however, may consent to the cancellation of an irrevocable letter.

Again, commercial letters of credit may be *confirmed* or *unconfirmed*. A confirmed letter is one whose terms are guaranteed by a bank other than the issuer. Confirmation is usually obtained upon the initiative of the beneficiary, and it may be desirable when there is some doubt as to the credit position of the issuing bank. In those instances whereby a bank in one country requests its foreign correspondent to issue a letter of credit in the former's name, the correspondent bank usually adds its confirmation. By confirming a letter of credit, a bank agrees to fulfill its terms if the issuing bank defaults for any reason, and it also usually undertakes to buy without question the draft drawn under the letter. An unconfirmed letter is one which exclusively depends upon the issuing bank's obligation to accept.

Thus it is possible to have an irrevocable confirmed letter of credit, which is an instrument of the highest quality; an irrevocable unconfirmed letter, which is likely to be quite adequate, although somewhat weaker than the irrevocable confirmed letter; and a revocable unconfirmed letter, which is an instrument of the weakest quality—a type rarely used. The fourth pos-

sible combination—a revocable confirmed letter—does not exist in practice, for no bank will guarantee a letter which the issuing bank itself may cancel.

Commercial letters are also classified as *revolving* or *fixed*. A fixed letter is one which is exhausted when a draft of the designated amount has been drawn and accepted; a revolving letter is one which may be drawn upon in part or in full repeatedly. An illustration will indicate the use of a revolving letter. Let us say that an American firm expects to buy several shipments of coffee from a Brazilian exporter over a period of several months, and that the total cost of the shipments is not known when the letter is opened. Let us assume further that the American firm opens a revolving letter for \$50,000 in favor of the Brazilian exporter, and the latter makes several shipments and draws drafts totaling \$35,000. In making further shipments, the Brazilian exporter would apparently be entitled to draw only to the amount of the remaining \$15,000; but if the American importer pays the bank \$35,000 to cover the drafts already drawn, the full letter of credit, so to speak, revives, and the Brazilian exporter once again would be authorized to draw to the amount of \$50,000.

TRADE DRAFTS

The terms arranged between importers and exporters in international trade commonly call for the use of trade drafts rather than drafts drawn upon banks under commercial letters of credit. A trade draft may be defined as an order drawn by one party upon a second party to pay a certain sum of money to bearer or to the order of a third party on demand or at a fixed or determinable future time. A trade draft is drawn by the exporter upon the importer himself and not upon the importer's bank. The first and third parties of a trade draft may be identical, that is, the exporter, although a bank is likely to be named as the third party if it buys the draft from the first party or if it undertakes to make collection for him.

Trade drafts may be classified as follows:

- A) Sight or demand drafts
 - 1) Clean
 - 2) Documentary for payment
- B) Time drafts
 - 1) Clean
 - 2) Documentary
 - a) Documentary for acceptance
 - b) Documentary for payment

Clean Trade Drafts.—A clean trade draft is one which is unaccompanied by a bill of lading or other document of title. Whether payable at sight or at some future time, it is used only when the exporter has full confidence in the ability and willingness of the foreign importer to pay. The sale of goods on the basis of a clean trade draft is similar to a sale on book account, since

the exporter has no special safeguards of any kind. The bill of lading and other documents are sent to the importer direct, and thus he is able to obtain the goods from the shipping company without reference to the draft. The trade draft itself is usually given to a bank in the exporter's country for collection. The exporter's bank forwards it to its correspondent in the importer's country, and the correspondent presents it. If it is a sight instrument, the importer is asked to pay at once; if a time instrument, he merely writes his acceptance across the face, and the correspondent bank then holds it till maturity, when it is again presented, this time for payment.

Documentary Trade Drafts.—A documentary trade draft is one to which is attached a bill of lading or other document of title, which is surrendered to the foreign importer only after he has paid the draft, if it is a sight or documentary-for-payment (D/P) bill, or only after he has accepted it, if it is a documentary-for-acceptance (D/A) bill. Documentary sight drafts and D/P time bills protect the exporter, since title to the goods does not pass to the importer until he has made payment. On the other hand, the D/A bill offers no important protection, since the acceptance of the importer releases to him the bill of lading; he may obtain the goods and sell them, and then refuse to make payment at maturity. Hence D/A bills, like clean drafts, are used only in selling to foreign customers of established credit position.

Documentary trade drafts may be sold by the exporter to his bank, or may be turned over to the bank merely for presentation and collection. Banks do not usually buy clean bills and D/A bills because of the lack of protection; nor, as a matter of fact, do they buy D/P bills unless the exporter's credit rating is sound. In other words, the banks in buying trade drafts rely upon the obligation of the exporter, who is secondarily liable, rather than upon that of the foreign importer, who is primarily liable. While it is true that a bank which buys a D/P bill retains title to the goods until the foreign importer pays, the proceeds of the sale of the goods may not be sufficient to reimburse the bank if the importer fails to pay. In the event that the foreign importer defaults, it would be necessary to find a new buyer in his country or to return the goods to the exporting country; hence the bank relies upon the exporter's secondary liability to protect it against loss should a default occur.

Whether a bank buys documentary trade drafts or merely undertakes their collection, it forwards them to its correspondent in the importer's country, and the latter presents them for payment or for acceptance, as the case may be. When payment is received, the correspondent credits the account of the exporter's bank, and the latter credits the account of the exporter (if it has not already done so in buying the bill). The foreign importer is usually given the right to inspect the goods before accepting a D/A bill or paying a D/P bill.

The arrangement may appear somewhat anomalous when a D/P bill

payable at some future time is used. The goods arrive in the importer's country, but he is not able to take possession of them until he makes payment, and the terms of the bill may permit the deferment of payment for a considerable period of time. Such bills are therefore used chiefly in the shipment of nonperishable goods which can be stored in a public warehouse in the importer's country until he has arranged payment. Sometimes, however, the correspondent bank in the importer's country takes the responsibility of releasing the bill of lading to the importer before the latter has paid the draft. In such instances, the importer gives the correspondent bank a trust receipt or other document of title.

AUTHORITY TO PURCHASE

In certain respects, an *authority to purchase* resembles a commercial letter of credit, but it gives rise to trade drafts rather than to bankers' acceptances. It may be defined as an instrument issued by a bank authorizing its foreign correspondent to act as its agent in buying a trade draft drawn by an exporter upon an importer located in the country of the issuing bank. Authorities to purchase are used principally in trade with the Far East, and they are primarily designed to supply immediate funds to those who export goods there. In the absence of authorities to purchase, exporters to the Orient would normally have to wait a long time for payment even on sight drafts, because of the distance involved.

To illustrate the use of an authority to purchase, let us suppose that a Chinese importer is buying a shipment of merchandise from an American exporter against a D/P bill. The importer requests the Chinese bank to issue an authority to purchase to its American correspondent, at the same time giving assurances that he will be able to meet the draft when presented. The authority to purchase, if issued, authorizes the American correspondent to buy the draft drawn by the American exporter. The American correspondent notifies the American exporter that the authority to purchase has been issued, and the exporter draws the draft and sells it to the bank. The American correspondent then forwards the draft to the Chinese bank, which makes collection from the Chinese importer.

The American exporter of the illustration is provided no real protection by the authority to purchase. The American correspondent bank buys the draft only as the agent of the Chinese bank, yet the Chinese bank does not guarantee payment by the importer. If, therefore, the Chinese importer fails to honor the draft, the exporter, who is secondarily liable as drawer, will very likely be called upon to make payment, that is, to reimburse the American correspondent bank for the funds advanced when the draft was bought. The authority to purchase, however, does give the exporter some assurance respecting the credit position of the Chinese importer, since the Chinese bank would not issue the authority to purchase unless it regarded him as reliable.

Documents Used in Foreign Exchange

From time to time, in the foregoing sections of this chapter, we have had occasion to refer to the bills of lading and "other documents" which are frequently attached to drafts when they are forwarded for collection or payment. Before concluding the chapter, therefore, we may well devote a few paragraphs to a description of the more important documents.

BILL OF LADING

A bill of lading is a contract for the transportation of goods entered into between the exporter and the shipping company. The bill of lading is made out in triplicate—the first or original copy, which is given to the exporter, is a document of title which gives the party in whose favor it is issued the right to claim the goods at their destination; another copy is given to the exporter as his receipt; and the third copy is retained by the shipping company as its evidence of the transaction. The first, or original copy, or document of title, is usually made out "to the order of" the exporter, and he is able to transfer title to the goods by indorsement; it is to this form that we have frequently referred when speaking of the "bill of lading."

CERTIFICATE OF MARINE INSURANCE

Another document invariably required in shipments of goods by ocean carriers is a certificate of marine insurance. Rail carriers in the United States and other countries are by law made responsible for damages to goods during the course of transit, but this is not true of ocean steamship lines. Marine insurance is desirable not only to protect the exporter should the goods be lost at sea, but also to protect whatever bank purchases his drafts; indeed, exporters would find it impossible to sell drafts to banks were the shipments uninsured.

An exporter may enter into separate negotiations with a marine insurance company every time a shipment is made, obtain a certificate covering the shipment, and pay the necessary premiums; but, more commonly, he will obtain from the insurance company an "open policy" which enables him to prepare his own certificates of insurance as he forwards each shipment. He notifies the insurance company of the certificates he has filled out and pays the premiums.

HYPOTHECATION CERTIFICATE

A hypothecation certificate is a document required when an exporter sells to his bank drafts drawn upon foreign importers and foreign banks. The certificate, however, remains with the buying bank and does not accompany the drafts in their journey abroad. The bank requires the certificate to protect itself in the event that it is refused payment by the foreign banks

or importers upon whom the drafts are drawn, for it is a guaranty of the seller of the drafts to reimburse the bank for any losses.

Suppose that an American importer, who is buying a shipment of goods from a British exporter, is required to obtain a commercial letter of credit from an American bank. The American bank, in granting the letter of credit, requires the importer, as we have seen, to sign a contract to provide it with funds to meet the draft (acceptance) at maturity. If the importer defaults, the American bank may bring suit against him for breach of the contract. Now the British exporter draws the draft and sells it to his British bank—and that bank also demands special safeguards. Hence the hypothecation certificate, which is executed by the British exporter, authorizes the British bank, in case of default of the American issuing bank, to sell the goods as well as to seize other property of the exporter to reimburse itself.

The exporter may supply his bank with a separate hypothecation certificate every time he sells it a draft, or he may give it a "general letter of hypothecation" which guarantees the bank against loss upon any drafts that he may sell it regardless of the number, the amount involved, the time, or other circumstances.

OTHER DOCUMENTS

Several other varieties of documents customarily attached to drafts moving in international mails remain to be mentioned. A *consular invoice* is required by the United States and by many of the countries of Latin America. The foreign exporter who sends goods to the United States must obtain such an invoice from the American consul located in his country. It is merely a description of the merchandise to be shipped, and it is used by American customs officials in assessing tariff duties against the shipment. Some countries require *certificates of origin* and *antidumping certificates* to assure customs officials that the terms of trade and tariff treaties with other countries are being observed. *Inspection certificates* may be required for imports of meat, butter, and other foodstuffs, and *health certificates* may be necessary for imports of cattle, sheep, and other livestock.

A bank is likely to require the exporter to attach a copy of the *commercial invoice* to the draft that he turns over to it for sale or for collection, but there is no reason why the invoice cannot be sent direct to the importer.

Finally, the exporter may include among the documents a *letter of instructions*; such a letter is especially desirable if the exporter's bank and its foreign correspondent are merely acting as collection agents. The letter of instructions states what steps the banks are to take if the foreign importer or his bank, as the case may be, fails to accept the draft.

Chapter 31

FOREIGN EXCHANGE RATES

Current Rates

The second preceding chapter noted that the foreign departments of commercial banks may be regarded as merchants whose "stock in trade" consists of foreign currencies. Carrying this concept further, we may say that the rates of exchange are the *prices* at which the merchants are willing to buy and sell units of the foreign currencies. As in the purchase and sale of any commodity, many different prices or rates are quoted, and they vary from bank to bank and from time to time. In periods of brisk buying and selling, the rates may change hourly or even more often; as a matter of fact, several different quotations may be obtainable at any moment from various banks for the purchase or sale of a given block of foreign funds. Banks establish rates which vary according to the size of the transaction, the tenor and other terms of the instruments which are bought or sold, and the importance of the customer who is buying or selling.

Regarded collectively, the rates which a country quotes for foreign currencies represent a measure of the *external* purchasing power or value of that country's money; from this point of view, therefore, foreign exchange rates may be compared with index numbers of prices which, as we know, are designed to measure the *internal* purchasing power of money.

CLASSIFICATION OF RATES

The most useful classifications of rates of exchange may be paired as follows: buying and selling rates, sight and time rate, market and over-the-counter rates, spot and forward rates, and free and official rates.

The distinction between *buying rates* and *selling rates* is based upon the position of the banks and other dealers in foreign currencies. A buying rate is a price at which a bank will buy a unit of a foreign currency; a selling rate is the price at which it will sell a unit of that currency. In day-to-day quotations, selling rates are always higher than buying rates, the "spread" representing the gross profit margin upon which the banks operate. In this regard, however, one must remember that the banks do not always realize

their normal profit margin and that sometimes they exceed it. Thus if the banks are selling Canadian dollars today at 91 cents, the particular dollars which they are offering may have been bought several days or weeks ago at $91\frac{1}{2}$ cents, so that they are taking a loss.

Sight rates apply to the purchase and sale of foreign exchange instruments immediately payable upon presentation to the drawees, while *time rates* apply to instruments payable at the expiration of a designated period of time. The "spread" between time and sight rates, therefore, has its origin in the interest or discount which is applicable to the time instruments but which is inapplicable to the sight instruments. Thus a bank, in buying a sterling instrument payable sixty days hence, would probably pay a lower rate than would be quoted for an instrument immediately payable upon presentation at a British bank.

The distinction between *market rates* and *over-the-counter rates* is similar to that between the wholesale and retail prices of food, clothing, and other commodities. The market rates usually govern in transactions between the middlemen in the foreign exchange market as well as in the purchase and sale of large amounts of foreign currencies by "outside" buyers and sellers; over-the-counter rates are those paid or received by banks and dealers upon transactions involving small or moderate sums with "outside" buyers and sellers. A person who applies for a banker's sight draft for £500,000 would surely be given a lower rate than a person who buys a draft for £2 to subscribe to a British magazine or newspaper.

Spot rates are those quoted for the immediate delivery of the foreign exchange instruments, while *forward rates* are those quoted for the delivery of the instruments at some future time. An American exporter may have the authority under a letter of credit to draw a demand draft against a British bank for £5,000. In selling the draft to an American bank, he would be paid a spot rate. Another American exporter may know that he is to receive a payment of £5,000 in thirty days from a British importer, and he may at once make a contract with the bank to sell the sterling for delivery thirty days later; in this instance, the contract would provide for payment to the importer at the end of thirty days at the bank's forward buying rate. Care must be exercised to avoid confusing time rates and forward rates. It may be well, therefore, to repeat that a time rate applies to the immediate delivery of a foreign exchange instrument which is payable at a future time, and that a forward rate applies to a present contract for the delivery of the instrument at a time in the future.

Finally, *free rates* are to be distinguished from *official rates*. As the term indicates, a free rate is established by the normal forces of supply and demand in a competitive market. An official rate, on the other hand, is stipulated by the authority of a national government. If a dealer in exchange is at liberty to buy and sell foreign currencies at rates arrived at by bargaining with his customers, the rates are free; but if he is permitted to buy

or sell only at rates which the government has designated, the rates are official.

RELATIONSHIP AMONG RATES

Except for official rates, the rates classified in the preceding paragraphs are not independent of one another; a very close relationship exists among them. To illustrate the nature of the relationship, it is convenient to make use of a list of rates quoted several years ago. The following prices per pound sterling on London were quoted in New York as closing market rates on April 14, 1939:

Bankers' bills	
Bankers' sight drafts	4.68
Cables	4.68 1/16
Commercial bills	
Commercial sight	4.67 3/4
Commercial 60-day	4.66 1/4
Commercial 90-day	4.65 5/8
Commercial 60-day D/P	4.66 1/4
7-day grain	4.67 1/4
Cotton and grain D/P	4.67 3/4

The dollar-sterling rate is used for illustration because it has long been the most important rate in international exchange; rates as remote as those of April 14, 1939, are quoted because Great Britain at that time, although off the gold standard, had not yet introduced the exchange control made necessary by the outbreak of the Second World War. Hence the foregoing rates were established in a free market.

It is important to note that all the classes of rates which we described, except for over-the-counter, forward, and official rates, are included in the foregoing list; in other words, all the rates are market rates, all are free, all are spot, some are buying and some selling rates, and some are sight and some time rates. We shall immediately examine the relationship between buying and selling rates, and between sight and time rates; we shall consider the relationship between spot and forward rates in a later section of this chapter; we shall defer a consideration of official rates to the following chapter, where many of the procedures of exchange control are analyzed; and over-the-counter rates we may dismiss at once by merely stating that at any time they are likely to be slightly higher than the market rates upon bankers' bills, and slightly lower than the market rates upon commercial bills.

Buying and Selling Rates.—The two rates quoted for "bankers' bills" in the foregoing list are the market or "wholesale" rates at which bankers were willing to sell sterling on April 14, 1939. The bankers' sight rate is that charged for bankers' sight drafts drawn by American banks against their deposits with British correspondents, while the rate for cables applies

to bankers' sight drafts "sent by wire rather than by mail."¹ The rates quoted for "commercial bills," on the other hand, are the market rates at which American banks were willing to *buy* instruments drawn against British banks and importers and held by American exporters and creditors.

Two sight rates are quoted—the bankers' sight rate of \$4.68, and the commercial sight rate of \$4.67¾. The difference between these two rates is the gross profit margin on the basis of which the American banks were willing to buy and sell. No interest calculation is involved in the relationship of the two rates. It is true that an American bank, in buying a draft drawn under a letter of credit issued by a British bank, would have to wait several days before having its British balance credited—the time required for the mails to reach London. But when it sells bankers' sight drafts against its British account, there is an equal delay before the drafts are presented in London for payment. Hence at the same time that an American bank buys a draft on London for a specific amount of sterling, it can sell a banker's sight draft for the same amount. Interest is not involved, nor is there an exchange risk of any kind. The margin of one-fourth cent per pound between the two sight rates, therefore, is the American bankers' markup.

Sight and Time Rates.—Interest or discount enters into the calculation of all the rates quoted except the sight buying rate and the sight selling rate. Interest is involved even in the determination of the cable selling rate. In selling a banker's sight draft against its British account the American bank knows that it will not be presented for payment for several days, but that in selling a cable, its British account will be charged almost at once. The sale of the sight draft permits the bank to use its British funds in money market investments or elsewhere while the draft is in transit. Indeed, the American bank may sell sight drafts without having a deposit in London, if it is certain that it can cover the transaction by cabling funds before the drafts are presented for payment. Since, on the other hand, a sterling balance with its British correspondent must be available when a cable is sold, the bank feels that it loses interest for several days; thus it charges a slightly higher rate for the cable. The cost of sending the cable is an additional expense assessed against the buyer and is not included in the cable rate itself.

The buying prices of all commercial bills depend upon the bankers' sight rate. The commercial sight rate, we have said, is lower than the bankers' sight rate by the amount of the profit margin on the basis of which the bankers are willing to buy and sell. The rates on time bills not only allow for the profit margin but also for discount for the period from the date the bills are purchased to the date of their maturity (plus the three days of grace allowed in Great Britain). The discount rate used in calculating the present value of a time bill payable in sterling is that which prevails in the

¹ See above, p. 482.

British money market rather than that prevailing here. The charging of discount is obviously reasonable since the American buying bank must wait for a period of time before collecting the sterling payment; or, if it wants to have its British account built up immediately, it may sell the bill in the British money market at the rate of discount in effect there.

The Determination of Rates

Having examined the reasons for differences among various classes of exchange rates, we must next attempt to discover why, at any given time, the numerous rates quoted on any foreign money center tend to concentrate within a narrow range. Why, for example, did all the sight rates on London on the date cited stand in close proximity to \$4.68? Why was not the point of concentration \$4.50, or \$5.20, or \$3.25?

SUPPLY AND DEMAND

In a free market, exchange rates, like all prices, are determined through the interaction of the forces of supply and demand. Supply is a schedule of the quantities of foreign currencies which will be offered at various prices or rates, and demand is a schedule of the quantities which will be taken at various prices or rates. The market rate, then, is one which brings supply and demand into equilibrium. Rates may rise because of an increase in demand or a decrease in supply, and they may fall because of a decrease in demand or an increase in supply. The demand originates, as we have seen, because people living in one country must make payments in foreign countries on account of the purchase of merchandise, service, and capital instruments; and the supply, because residents of a country receive payments in foreign currencies which they desire to convert into domestic money.

Regardless, therefore, of the kinds of monetary standards which countries maintain, exchange rates are determined by supply and demand. The fact that the rate between two countries which maintain some variant of the gold standard remains remarkably stable over a long period of time does not, in any way, rule out the conclusions of ordinary supply and demand analysis. Nor must one be misled into believing that the widely fluctuating rates between countries having fiat standards are, for some reason, more responsive to supply and demand factors than are stable rates. Nevertheless, monetary standards may be extremely influential in affecting supply and demand—in this fact we find the explanation why rates of exchange behave differently, depending upon the monetary standards of the countries whose moneys, as one might say, the rates connect. We shall find it advantageous, therefore, to consider the determination of rates between two countries (1) when both maintain the gold standard, (2) when both have fiat standards, and (3) when they have dissimilar standards.

EXCHANGE RATES BETWEEN COUNTRIES ON THE GOLD STANDARD

Par of Exchange.—When the monetary systems of both the United States and Great Britain satisfied the requirements of an international gold standard, that is, before the First World War, and in the period from 1925 to 1931, the rates of exchange between the two countries were always in close proximity to \$4.8665. This point was known as the *par of exchange* because it was the exact ratio between the gold weight of the pound and the gold weight of the dollar. The pound contained 113.0015 grains of fine gold, and the dollar, 23.22 grains. Thus if we were asked to explain why the closing rate for bankers' sight drafts on May 2, 1930, was \$4.85%, our explanation would necessarily include a reference to the par of exchange—the relationship between the gold weights of the two monetary units.

Similar pars of exchange existed in respect to other gold monetary units—between the pound and the franc, between the dollar and the franc, between the Canadian dollar and the American dollar, and so on. When both Canada and the United States maintained the gold standard, for example, the par of exchange between them was unity, since both monetary units were stated as equal quantities of gold.

Variations from Parity.—Though \$4.8665 was the par of exchange between the United States and Great Britain before the latter suspended the gold standard in September, 1931, it was nevertheless possible for current exchange rates to vary from this point because of the effects of ordinary supply and demand factors. Variations, however, were confined within narrow limits because gold could be shipped between the United States and Great Britain if the rates on bankers' bills and commercial bills got too far out of line. The range of possible fluctuations was determined by three factors: (1) the costs of packing, carting, shipping, insuring, and assaying gold, together with other minor expenses involved in handling it; (2) the interest lost while gold was in transit; and (3) the profit desired by the bankers who arranged shipments of gold.

The calculation of interest losses depended upon the direction in which the gold moved—whether the bankers were importing it or exporting it. If an American banker were sending gold to London, he could almost immediately sell bankers' sight drafts against the sterling deposits which would be created by the sale of the gold; hence the interest loss could not amount to more than two or three days. If he were importing gold to the United States, on the other hand, he would lose interest for the entire time required for the shipment. As for the profit on gold shipments, bankers normally expected to earn one-fourth cent per pound sterling.

Before 1931, the cost of shipping gold between England and the United States and the loss of interest involved in gold shipments commonly approximated two cents for 113.0015 grains of fine gold, that is, for the amount of gold contained in a British pound. Costs, of course, varied from time to time with changes in interest rates, insurance premiums, and other

expenses, but, for the illustrations in the following paragraphs, we may conveniently use two cents as an average cost of shipment exclusive of any allowance for bankers' profits.

Gold Export Point.—When the gold standard was maintained, the rates of exchange in New York on London could rise only to the *gold export point*, for shipments of gold to London prevented any further rise. Likewise, the rates could fall only as far as the *gold import point*, where the fall was arrested by shipments of gold from Great Britain to the United States.

Suppose, for example, that many American importers were in the market to buy bankers' sight drafts on London, and at the same time few American exporters had sterling instruments to sell to the banks. The large number of bills applied for and the relatively small number offered would lead American bankers to increase the price of their sight drafts on London payable in sterling. At the same time, they would very likely offer better prices for sterling instruments in the hands of American exporters in order to replenish their London balances. But, roughly speaking, the selling rate for bankers' sight drafts would not go above \$4.8890, and the buying rate for commercial sight bills would not go above \$4.8865. A bankers' sight rate of approximately \$4.8890 was the gold export point.

With the bankers' sight rate at \$4.8890, all American bankers dealing in foreign exchange would be encouraged to ship gold to London. They could buy 113.0015 grains of fine gold in the United States for \$4.8665, pay the costs of two cents for shipment to London, sell the gold there and receive a sterling balance of one pound. They could then sell a banker's sight draft for one pound at \$4.8890 and make their usual profit of one-fourth cent. If some bankers were slow to take the opportunity to make this profit, others would hasten to arrange the shipments.

Similarly, the buying rate for commercial sight bills could not go above \$4.8865, because the bankers could buy any quantity of gold and pay the shipping charges to London at a total cost no greater than that (per 113.0015 grains). They would not pay American exporters more than \$4.8865 for their sterling instruments when they could obtain an unlimited quantity of sterling balances at that price.

Gold Import Point.—At the other end of the scale, the selling price of bankers' sight drafts would not be likely to fall below \$4.8465, nor the buying rate of commercial sight bills below \$4.8440. When Great Britain and the United States were both on the gold standard, a bankers' sight rate of \$4.8465 was approximately the gold import point.

The selling rate of bankers' sight drafts on London would not ordinarily go below \$4.8465, because the American banker could buy 113.0015 grains of gold in London for each pound in his sterling balance, import the gold to the United States, and sell it to the Treasury for \$4.8665. After deducting the shipping and interest costs of two cents, he would have \$4.8465. If by importing gold, he could convert his sterling balance into dollars for a

net amount of \$4.8465 per pound, he would not be likely to sell his pounds to American importers for any price less than that. The expenses of two cents per pound would probably represent a loss—depending, however, upon the price at which the banker originally acquired his sterling balance—but the loss would thus be held to a minimum.

The buying rate for commercial sight bills payable in sterling would not ordinarily fall below \$4.8440, because the bankers could buy any quantity at that price, have them converted into gold in London, import the gold to the United States and sell it to the Treasury, receiving, after the payment of shipping charges and allowing for interest loss, \$4.8465—a price to give them their usual profit of one-fourth cent per pound.

Foreign Import and Export Points.—One might think that, in times when the bankers' sight rate on London was rising, the American bankers by mutual agreement would refuse to export gold; by permitting the rate to go far beyond the gold export point, they would apparently make possible the reaping of extraordinary profits. Such a policy, however, was impossible because the British bankers had exactly the same interest in importing and exporting gold as had the American bankers. In other words, whenever it was desirable for American bankers to import gold from England, it was also desirable for British bankers to export gold to the United States; and whenever the American bankers thought it desirable to export gold to England, the British bankers found it to their advantage to import gold from the United States.

Let us see why this was so. A rate of \$4.8890 is a high rate on London, but it is a low rate in London on New York. An American would have to pay \$4.8890 to obtain a pound which in gold would be worth only \$4.8665; but the Englishman, in exchange for his pound, would obtain \$4.8890 instead of \$4.8665. If the British rate on New York is expressed in terms of British currency, rather than in terms of dollars as is customary, the reasoning will be clearer. When the exchange rate in New York on London is \$4.8665, the cost of a dollar in London is approximately four shillings and one and a third pence; and when the rate on London is \$4.8890, the cost of a dollar in London is only four shillings and one penny. Thus when the American banker was thinking of shipping gold to build up his London balance, the London banker was thinking of importing gold from the United States, for the reason that he could sell his dollar drafts on New York only at low prices.

Thus the American gold export point was, at the same time, the British gold import point, and the American gold import point was the British gold export point.

Theory of Gold Movements.—The foregoing discussion of the behavior of exchange rates between countries having the gold standard does not in any manner gainsay what we have stated regarding the influence of supply and demand factors upon the rates of exchange. To reconcile the supply

and demand analysis with the conclusions of the gold-import-and-export-point analysis, however, we find it necessary to inquire into the effects of gold movements upon the supply of and demand for foreign currencies. We must refer again to the theory of gold movements (or the theory of the price-specie-flow mechanism) introduced in an earlier chapter.²

According to the theory of gold movements, shipments of gold become necessary because of disequilibriums in a country's balance of payments. An extraordinary demand for or supply of foreign currencies causes the exchange rates to move to the import or export point, and gold flows in or out. An unchecked outward flow of gold would in time exhaust the country's gold reserves, throwing it off the gold standard, and an unchecked inward flow would very likely exhaust the gold reserves of other countries, forcing them to relinquish the standard; in such circumstances, gold import and export points would lose their significance, and rates of exchange would be free to fluctuate widely. But the theory of gold movements holds that the shipments of gold tend to correct whatever developments caused them, that is, to restore equilibrium in the balance of payments. Not only does the shipment of gold directly affect the supply of foreign currencies by increasing foreign balances of the banks of the exporting country or by decreasing foreign balances of the banks of the importing country, but also, by redistributing gold reserves, it is likely to bring about important changes in each country's internal monetary situation.

By way of illustration, let us suppose that a continuous heavy demand for dollar drafts in London causes their price to rise to the British gold export point (the American gold import point), and that, as a consequence, gold flows from Britain to the United States. As soon as the gold is received in the United States, the dollar balances of British banks are increased (or the sterling balances of American banks are reduced), and such a development directly improves the supply situation from the British point of view. Likely to be more important, however, are the effects of the gold movements upon the monetary reserves of Britain and the United States. The reduction of British reserves is likely to cause a severalfold reduction in Britain's monetary supply—assuming, as we are, the normal workings of the gold standard—while the increase in American reserves makes possible a severalfold expansion in our monetary supply. The decrease in the outstanding volume of money in Britain is likely to cause prices to fall and interest rates to rise, while contrary consequences would be likely to obtain in the United States. Now the original heavy demand for dollar drafts in London presumably originated because the British people were finding the United States a relatively cheap place in which to buy goods and a relatively favorable market in which to make investments, and the original short supply of dollar exchange (from the British point of view) presumably originated because the American people recognized Great

² See above, pp. 40-41.

Britain as a relatively expensive market for goods and an unfavorable locale for investments. But, as we have said, the gold movements, by their effect upon monetary reserves and the outstanding volume of money, are likely to bring about specific changes in price levels and interest rates in the two countries—changes of a character tending to make Britain a more favorable place in which to buy and invest, and the United States less favorable. Hence the demand for dollars in London should decline, and the demand for sterling in New York should increase, with the result that the rate of exchange should recede from the British gold export point, thereby checking further outward movements of gold.

In summary, then, we may say that, in a gold-standard situation, rates of exchange are determined by supply and demand, and that the rates do not go beyond the gold points so long as gold is available for shipment and so long as gold movements are permitted to work out their normal effects upon internal monetary supply, price levels, and interest rates. If gold is not available for shipment or if it is not permitted to influence the internal monetary situation—then, of course, the gold standard, as we have known it, is not in operation, and exchange-rate behavior quite different from what we have described might well be expected. That is the matter to which we now turn.

EXCHANGE RATES BETWEEN COUNTRIES HAVING FIAT STANDARDS

Although it is perfectly proper to say that exchange rates between countries which maintain fiat monetary standards, like those between countries having the gold standard, are determined by the supply of and demand for foreign currencies, such a conclusion yields but little information respecting the processes by which a particular level of rates is reached. It is necessary to inquire how the balance of payments of a country which operates upon the fiat standard is brought into equilibrium. Disequilibriums in the balance of payments of a gold-standard country, we have indicated, are overcome by gold movements which effect certain changes in monetary reserves, in price levels, and in interest rates—which, in other words, effect certain modifications in the supply and demand situation; but for the country having a fiat standard, disequilibriums are not removed as a result of gold movements, so that supply and demand must be adjusted in some other way.

Purchasing Power Parity.—Much attention has been given to the theory of “purchasing power parity” as an explanation of the determination of equilibrium rates of exchange among countries which maintain fiat monetary standards. The theory was popularized by Professor Gustav Cassel, the distinguished Swedish economist, in accounting for the levels of exchange rates which obtained during and after the First World War when the gold standard was universally suspended.³ Stated in its simplest form, the

³ See Professor Cassel's *Money and Foreign Exchange after 1914* (New York: The Macmillan Company, 1922), especially Chapters 10–13.

theory of purchasing power parity holds that the exchange rates between countries tend to a level which gives any monetary unit the same purchasing power in foreign countries that it has at home. Thus the price levels of various countries may be said to be "at par" with one another when the monetary units possess purchasing power of this description. Such a parity among price levels, it is believed, exists among gold-standard countries as well as among those having fiat standards; but while the "rules of the game" of the gold standard require internal price levels to fluctuate so that exchange rates may remain relatively fixed,⁴ the fiat standard permits internal price levels to fluctuate independently, so that exchange rates must adjust themselves to keep the price levels in proper relation to one another. Thus if the price level of Country A rises at a time when the gold standard is maintained throughout the world, that price level is temporarily away from parity with the price levels of all other countries having the gold standard; either Country A's price level must fall again or the price levels of other countries must rise to a new parity with it, for if neither of these developments takes place, Country A will be forced to suspend the gold standard. But if Country A operates upon a fiat standard at the time that its price level rises, its price level can immediately be restored to parity with those of other countries by a rise in its exchange rates upon those countries—a rise which is not limited by a gold export point and which is not impeded by gold movements.

To indicate the approach of the theory of purchasing power parity (although not to prove the theory, as we shall see subsequently), let us make use of a concrete illustration. Let us suppose that Great Britain and the United States both have fiat standards, that their internal price levels may be expressed as index numbers at 100, and that the rate of exchange between the dollar and the pound is \$3.50. We may assume that \$3.50 will buy as much in Great Britain as it will at home, and that, on the other hand, a pound will buy as much in the United States as at home. Thus we may say that the British and American price levels are "at par" with each other. Now let us assume that the British price level rises 25 per cent while the American price level remains stationary. This change, if uncompensated, would make Britain an expensive place in which to buy, and the United States, by comparison, a cheap place. The American demand for sterling bills would greatly decline, and at the same time the supply would expand because of heavily increased purchases of the British in the United States.

In these circumstances, the rate in New York on London would very likely fall until it reached \$2.80. At that point, the parity between the two price levels would be restored, and neither country would have an advantage as a cheaper market. The new equilibrium rate is discovered by multi-

⁴It will be recalled that the apparent necessity for fluctuations in internal price levels is generally regarded as a principal disadvantage of the gold standard. See above, pp. 41-42.

plying the old rate by the ratio between the American and British price levels, that is, $100/125 \times \$3.50$. Suppose that an American has been importing periodically from England a certain quantity of merchandise at a price of £200. At the old rate of exchange, the cost in American currency has been \$700. The rise in British prices, we may assume, would cause the same goods to sell for £250, and the American importer would presumably discontinue his purchases if the rate of exchange remained at the former level. But if the rate were to fall to \$2.80, the cost of the British goods would be exactly the same as before, that is, \$700.

If the British price level were to remain stationary, and the American price level to rise, say, 20 per cent, the British would curtail their purchases in the United States, and the American people would increase their purchases in Britain. The increased demand for sterling and the reduced supply would cause the exchange rate to move upward toward a new equilibrium rate of \$4.20. In a similar way, if the British price level were to rise 25 per cent, and the American price level to fall 20 per cent, the exchange rate, according to the theory of purchasing power parity, would overcome the disparity in the price levels by moving to \$2.24 (that is, $80/125 \times \$3.50$).

Limitations of the Theory of Purchasing Power Parity.—When one takes account of all the complex factors which enter into the determination of a country's balance of payments—and which, therefore, influence its exchange rates—one must reach the conclusion that many limitations in the theory of purchasing power parity must be recognized if it is to be accepted as a reasonable proposition. Some of the limitations were recognized long ago by those economists who were most zealous in defending the theory, while others have come to be acknowledged only after much disputation.

The proposition that exchange rates tend to a level which enables a monetary unit to have as much purchasing power abroad as at home—or, alternatively, which brings the price levels of various countries into parity with one another—cannot mean (despite our illustration) that price levels *as measured by index numbers* are moved to parity through exchange rate adjustments. Regardless of the accuracy of such index numbers, one must realize that their external significance is materially different from their internal application. Thus an index of the “general price level” is a composite of the individual prices of all types of goods, many of which have little or no part to play in international commercial transactions. On the other hand, it is not sufficient to think only in terms of goods which are actually transported in international trade, because the prices of goods produced and consumed within a country affect and are affected by the prices of goods traded internationally; moreover, goods not transportable abroad may be consumed within a country by foreigners who travel as tourists there. Again, it must be recognized that price indexes and price levels have little direct influence upon international traders, since importers and exporters have in mind the acquisition or sale in foreign countries of specific kinds

of goods, and not a general composite of goods. Yet again, tariff duties, the costs of transportation, and other obstacles to foreign trade must be taken into consideration in making price level comparisons, since they exercise a profound influence upon the international purchasing power of money. The prevalence of relatively low price levels in foreign countries is of little significance to Americans, for example, if they must pay high tariff duties upon the importation of foreign goods. Finally, it is necessary to make allowance for the fact that the prices of the numerous types of goods which are traded internationally as well as the prices of goods not so traded move in an unequal degree in the same direction or in opposite directions, yet an index of the general price level merely averages such movements.

Another line of criticism of the theory of purchasing power parity is directed at its alleged neglect of many balance-of-payments factors which are only indirectly—and often remotely—reflected in prices. Thus when capitalists decide to purchase the stocks of foreign corporations, they are likely to be more interested in the long-range prospects for profits rather than in the current prices at which those corporations are able to sell their products—yet the purchase of the foreign currencies by the capitalists as a step in the acquisition of the stocks must influence exchange rates. Again, unstable political conditions in a country may lead to a “flight” from its currency, but the people who hasten to convert their domestic assets into foreign currencies have little regard for the price level at home or for those prevailing in the countries in whose currencies they hope to obtain refuge. Similarly, the perennial operations of speculators in buying and selling foreign currencies tend to cause substantial fluctuations in exchange rates which have little relation to price levels and the purchasing power of various monetary units.

Balance-of-Payments Theory.—Granting the reasonableness of the foregoing criticisms of the theory of purchasing power parity, we must confess that the theory loses its original simplicity; nevertheless, the acceptance of modifications gains the advantage of making the theory more realistic. The modified theory of purchasing power parity really becomes a *balance-of-payments theory*, since it takes into account not only the prices prevailing in various countries, but also tariffs, subsidies, drawbacks, embargoes, and other government-sponsored aids and obstacles to foreign trade, the costs of transportation, speculation in foreign exchange, extraordinary demands for foreign currencies because of flights of capital, the influence of long-term international investment, and a host of other balance-of-payments factors. A balance-of-payments theory of the determination of exchange rates, it must be admitted, cannot be precisely described as a simple formula; yet a theory which recognizes the complexity of the forces determining a country's balance of payments, and therefore playing upon its exchange rates, is to be preferred to a theory which can be easily formulated but which glosses over those same complexities.

RATES OF EXCHANGE BETWEEN COUNTRIES HAVING DISSIMILAR STANDARDS

Gold-Fiat Exchange.—Between countries maintaining the gold standard and a fiat standard respectively, the rates of exchange tend to be established by the same factors which are the determinants of the rates between two countries having fiat standards. This is true if the country which operates upon a fiat basis completely wipes out, as one might say, the gold standard—if it suspends the redemption of internal currency, embargoes the exportation of gold, and refuses to allow gold to be imported. In such circumstances, the gold-standard country cannot obtain currency in the fiat-standard country by exporting gold, nor can it reduce its currency holdings in the fiat-standard country by importing gold from there. No par of exchange exists and the gold-standard country has no gold import and export points.

In ordinary circumstances, however, a country, in suspending the gold standard, merely discontinues to redeem its internal currency in gold and to sell gold at the price formerly fixed. It remains willing to accept imported gold for which it announces a buying price, and it may or may not embargo the exportation of gold. If Country A, a fiat-standard country, announces a price at which it is willing to buy gold, Country B, a gold-standard country, will have a gold export point, above which the price of bankers' sight drafts on A will not go. If Country A establishes an embargo on gold exports, Country B will have no gold import point with respect to A, and a fall in the rates of exchange in B on A cannot be stopped or corrected by gold movements.

The relationship between the dollar and the pound after the suspension of the gold standard by Great Britain in September, 1931, illustrates some aspects of the determination of exchange rates between countries which have dissimilar monetary standards. Britain's suspension of the gold standard merely meant that the Bank of England was not required to redeem its notes in gold or to sell gold at a fixed price. A buying rate, however, remained in force, and, in addition, the free London gold market was permitted to operate. Thus gold could be purchased in the London market for exportation, and it could also be imported for sale to the Bank of England.

While the buying rate of the Bank of England remained unchanged, the American gold export point still stood at approximately \$4.8890, for had the selling price of sterling bills in New York risen to that point, it would still have been possible for American bankers to buy gold at the Treasury, ship it to England, sell it to the Bank of England, and make the usual profit of one-fourth cent per pound. As a matter of fact, the rate never neared the gold export point in the months immediately following September, 1931, because the flight of capital from London caused it instead to fall precipitously. The rate fell as low as \$3.14 in the late months of the year 1932.⁵

⁵ The monthly average of daily rates in November, 1932, was \$3.2753, and in December, \$3.2787.—*Banking and Monetary Statistics*, p. 681.

An American gold import point also continued to exist because of the availability of gold in the London market. But the import point was a movable rather than a stationary one—it varied with every change in the price of gold in London as announced by the bullion brokers. Thus a London price of 26 shillings for 113.0015 grains of fine gold, in the period before the dollar was devaluated, would have made the American gold import point approximately \$3.73, while a London price of 24 shillings for 113.0015 grains would have made the import point approximately \$4.04.

Gold-Silver Exchange.—Between a gold-standard country and a silver-standard country, the par of exchange is determined upon the basis of the market price of silver in the gold-standard country. As the market price of silver in the gold-standard country is subject to many fluctuations, the par of exchange may vary from hour to hour and from day to day. We must assume, of course, that the monetary value of silver is fixed in the silver-standard country, and the monetary value of gold is fixed in the gold-standard country; and that silver bullion is treated merely as a commodity of trade in the gold-standard country, and similarly with gold in the silver-standard country.

Suppose that the United States is carrying on trade with Utopia, which has a silver monetary unit, which we may call the peso, of two ounces of fine silver. At what rate would an American bank which deals in peso exchange be willing to sell bankers' sight drafts drawn upon its Utopian correspondent and payable in pesos? Obviously, it has the choice of selling drafts or of converting its Utopian deposits into silver, importing the silver to the United States, and selling it in the American bullion market. If, therefore, the current price of silver in the American bullion market is 45 cents per ounce, the American bank is not likely to sell peso drafts at a rate less than 90 cents reduced by the costs of importing two ounces of silver; such a rate—90 cents less the costs of importing silver—would be the temporary silver import point, since the American bank could not afford to sell pesos at a price less than that. On the other hand, the selling rate upon peso drafts would not be likely to rise above 90 cents increased by the costs of transporting two ounces of silver from the United States to Utopia and by an allowance for the banks' profits; such a rate would be the temporary American export point for silver, since the American bank would find it profitable to offer an unlimited quantity of peso drafts at that price, while exporting silver to replenish its deposits in Utopia.

Exchange Arbitrage

RECIPROCAL RELATIONSHIP OF RATES

It may be stated as an established fact that the rates of exchange between any two money centers always tend to be reciprocal to each other. Thus if the rate in New York on London is \$4.00, the London-New York

rate should be the same; that is, if a pound costs \$4.00 in New York, a dollar in London should cost one-fourth pound or five shillings.

Should there be an increased demand for sterling on the part of Americans, and a declining demand for dollars on the part of the British, the exchange rate in New York on London would tend to rise, but that in London on New York would tend to fall. American importers would be buying large volumes of sterling instruments in New York, but American exporters would have few sterling bills to sell; and, at the same time, the British exporters would have many dollar bills to sell, but British importers would have no need to buy many bills payable in dollars. The New York rate on London might rise, say, from \$4.00 to \$4.02, but it is likely that the rate in London on New York would fall at the same time from \$4.00 to \$4.02.⁶ In other words, the American bankers, in view of the many applications for sterling bills, would be likely to charge more for them; and because of their large holdings of dollar balances, the British bankers would be inclined to sell them more cheaply.

In the event that exchange rates between two money centers are sluggish in maintaining or regaining their reciprocal relationship, they are brought into line, in the normal operation of a foreign exchange market, as a result of the action of arbitrageurs.

ARBITRAGE OPERATIONS

Two-Point Arbitrage.—Arbitrage may be defined as a simultaneous operation in two or more markets to gain a profit made possible because of discrepancies in prices or rates. The arbitrageur in foreign exchange must have an associate or associates in foreign markets to cooperate in the arbitrage operations, and, as speed is essential, only cables or telegraphic transfers are employed. Arbitrageurs have been satisfied with profits as small as .05 per cent, for even a rate of profit of that size yields a substantial return upon voluminous transactions.

At a given time, let us say, the cable rate in New York on London is \$4.02, and the cable rate in London on New York is also \$4.02. Now suppose that as a result of a sudden increase in demand for sterling bills, the New York rate on London goes to \$4.02¼, but the London rate on New York remains at its former level. The arbitrageur would immediately see his opportunity. He would sell, say, £100,000 of cables in New York at \$4.02¼, receiving in payment \$402,250; and, at the same time, his associate in London would sell \$402,000 of dollar cables at the current rate of \$4.02, receiving in payment £100,000. The pounds received in London would be used to cover those sold in New York, and \$402,000 of the amount received in

⁶ This statement may be confusing because the London-New York rate is stated in terms of dollars. It is only necessary to remember that an increase in the magnitude of the London-New York quotation is really a fall in the cost of dollars. In the illustration, British buyers of dollar instruments who formerly received \$4.00 for a pound would now, because of the fall in the rate, receive \$4.02 per pound.

New York would be used to cover the dollar cables sold in London. Thus the arbitragers would have a profit of \$250, less whatever expenses the transaction would entail.

Were the London rate on New York to go to $\$4.02\frac{1}{4}$, with the New York rate on London remaining stationary, the arbitragers would buy £100,000 in New York at a total cost of \$402,000, and would buy \$402,250 of cables in London at a cost of £100,000; such an operation would also produce a gross profit of \$250.

The opportunity to gain a profit by means of an arbitrage operation does not remain available indefinitely; indeed, the operation itself tends to cause the original discrepancy to disappear. Referring to the first part of the illustration, we may observe that the sale by the arbitragers of £100,000 in New York would tend to cause the New York rate on London to fall, and the sale of dollar cables in London would tend to cause the London rate on New York to fall also. Hence a new reciprocal rate, perhaps at $\$4.02\frac{1}{8}$, would be established.

Three-Point Arbitrage.—When foreign exchange markets are functioning with relative freedom, as in times of peace and economic prosperity, it is possible sometimes for arbitragers to gain a profit by operating simultaneously in three or more markets. To illustrate three-point arbitrage, we may make use of a situation which would have been possible before the outbreak of the Second World War in September, 1939. Let us suppose that at a particular moment the following cable and telegraphic rates were quoted in New York, London, and Paris:

New York on London	\$4.65
London on New York	\$4.65
London on Paris	186 francs
Paris on London	186 francs
New York on Paris	2.5 cents
Paris on New York	40 francs

As the rates are in exact reciprocal relationship to one another, no opportunity for an arbitrage profit exists at the moment. But suppose that the rate in London on Paris goes to $186\frac{1}{4}$ francs. An American arbitrageur would buy, say, £100,000 of sterling cables for \$465,000, and his associate in London would use the £100,000 to buy 18,625,000 francs. The American arbitrageur would sell 18,625,000 francs in New York at 2.5 cents, receiving in payment \$465,625. The sterling and franc transactions would obviously cancel, and the dollars received in the sale of the francs would cover the cost of the pounds and leave a gross profit of \$625 for the arbitragers.

Forward Contracts

With respect to those currencies which have an active market and which are not subject to rigorous government control, the foreign departments of

commercial banks provide facilities for the purchase and sale of "forward" exchange in addition to "spot" exchange. While a spot transaction is a purchase or sale of a foreign currency for immediate delivery, a forward transaction is the arrangement of a contract by which the bank agrees to buy or to sell, at a rate designated at once, a block of foreign currency which is to be delivered at some future time.

Forward contracts are sought by importers and exporters so that they may avoid the risk of fluctuations in exchange rates. Suppose, for example, that an American firm is contemplating the purchase of merchandise in England at a cost of £10,000. The current rate of exchange in New York on London is, say, \$3.96, but the goods are to be shipped against a sixty-day D/A draft. Thus the importer will have sixty days in which to make payment, but he has no assurance that the rate of exchange on London will still be \$3.96 when the time for payment arrives. In a word, he is willing to pay \$39,600 for the merchandise, but he does not want to pay much more than that. Should the rate of exchange be \$4.06 at the time that he must make payment, he would find that the merchandise was costing him \$1,000 more than he anticipated. If, however, he is able to negotiate with a bank a contract by which it agrees to sell him £10,000 in sixty days at approximately \$3.96, he need have no fears of rate fluctuations.

Likewise, an American exporter who is to receive a payment of £10,000 from a British firm in ninety days would probably want to have immediate assurances respecting the number of dollars into which the sterling will be convertible. If the spot buying rate for commercial sight bills in the United States is \$4.00, the exporter would expect to receive approximately \$40,000; but fluctuations in rates in the ninety-day period might cut down that amount—they might, indeed, wipe out whatever profits he had anticipated upon the sale of his goods. Hence, to avoid the risks of rate fluctuations, he would ask his bank to enter into a contract with him to buy the £10,000 in ninety days at a rate which would be satisfactory to both parties.

POSITION OF THE BANKS

In negotiating forward contracts, the banks would be assuming the risks of rate fluctuations if they, in turn, did not take steps to avoid or neutralize them. Generally speaking, they make it a practice to hedge upon their forward commitments, although they may accept the risks of rate variations upon small transactions. The usual method by which banks protect themselves is to balance forward sales and purchases. A bank which enters into a contract to sell £10,000 in ninety days at \$4.00 can avoid the risks of rate fluctuations by negotiating, at the same time, a ninety-day forward purchase of £10,000 at, say \$3.99¾. If, at the expiration of ninety days, the spot selling rate is actually \$4.01 and the spot buying rate is \$4.00¾, the bank "loses" one cent per pound on its forward selling contract,

but "gains" one cent per pound on its forward buying contract. The loss and gain mentioned here are, of course, purely theoretical, since the bank enjoys its usual gross profit of one-fourth cent per pound upon the £10,000 which it buys and sells—the "loss," therefore, simply means that the bank, in fulfilling its forward selling contract, must deliver at a rate one cent below that at which it could sell in the spot market, and the "gain" means that the bank, in taking delivery upon its forward buying contract, is able to acquire sterling at a rate one cent below that at which it could buy in the spot market.

The banks may also protect themselves by matching their forward contracts with purchases and sales in the spot market. Thus a bank which contracts to deliver £10,000 in sixty days may find itself unable to hedge by negotiating a forward contract to buy an equal sum, but it can buy £10,000 in the spot market, instruct its British correspondent to use the funds temporarily in money market investments, and thereby have full confidence in its capacity to make delivery sixty days hence. The temporary diversion of the funds to the British money market, of course, avoids the loss of interest that would be entailed if the sterling were held idle. In a similar manner, forward purchases of foreign currencies which cannot be hedged by forward sales may be matched by spot sales—by this procedure, the bank permits its foreign balances to fall below the customary level, expecting to replenish them when it takes delivery upon the forward buying contracts. *

In providing facilities by which importers and exporters are enabled to avoid the risks of fluctuations in exchange rates, and in attempting to avoid the risks themselves, the banks are assisted, as one might say, by speculators. The speculators in foreign exchange are not motivated through any altruistic regard for the banks, but they deliberately assume risks in the hope of gaining profits made possible by rate fluctuations. The "bull" in the foreign exchange market expects the rates on foreign money centers to rise, while the "bear" expects them to fall, and both are willing to risk their funds upon the accuracy of their forecasts. Suppose, for example, that a speculator believes that he will be able to sell sterling in the spot market sixty days hence at \$4.02 per pound, and he finds a bank which is quoting a sixty-day forward selling rate of \$4.01½. He is quite happy, therefore, to contract with the bank for a forward delivery at \$4.01½, for he expects to be able to sell the sterling to be delivered to him at a profit of one-half cent per pound. The bank which agrees to make forward delivery may have just entered into a contract with an exporter to buy the same amount of sterling at \$4.01¼ sixty days hence, so that, by means of the forward sale to the speculator, it is hedging upon its forward purchase. The exporter avoids the risks of rate fluctuations, as does the bank, but the speculator accepts them willingly.

FORWARD RATES

The rates quoted for forward contracts may be the same as the spot rates, or they may be at a premium or at a discount from the spot rates. Just as the spot rates at any time vary according to the supply of and demand for foreign currencies, so also forward rates fluctuate in accordance with the volume of contracts calling for forward sales and the volume calling for forward purchases. If many American exporters are expecting to receive sterling payments in sixty days and are negotiating contracts with their banks to sell the sterling when received, the forward rates on sterling tend to go to a discount; and, on the other hand, if many American importers will have to make payments in sterling in sixty days and are contracting to buy sterling for delivery at that time, the forward rates tend to go to a premium.

Forward Premiums.—On the whole, however, the forces of supply and demand which determine spot rates are the same forces which determine forward rates, so that it is ordinarily impossible for one set of rates to vary greatly from the other. The extremely close relationship existing between the spot and forward markets, and the choice which many buyers and sellers have of negotiating their transactions in either market or of “playing” one market against the other, preclude extreme “spreads” between spot and forward rates—preclude, that is to say, excessive premiums and discounts on forward rates. Thus an American importer who has a payment of £10,000 to make to a British creditor in sixty days either may buy that sum in the spot market and hold it for sixty days or may enter into a contract with his bank for a delivery of that amount in sixty days. If the bank’s spot selling rate is \$4.02, the importer knows that he can meet his obligation at a cost of \$40,200. Would he be willing to contract at \$4.04 for a forward delivery? The forward contract would cost him \$200 more than the spot purchase, but the former would enable him to use his \$40,200 for sixty days. The usefulness of the money for sixty days would obviously depend upon prevailing rates of interest. Under certain circumstances, the importer might regard a forward premium of two cents on sterling a reasonable one, and under other circumstances, he might look upon it as excessive. If the importer should decide to buy spot rather than to contract for a forward delivery, his purchase in the spot market would tend to drive up the spot rate, and his failure to contract for a forward delivery would tend to permit the forward rate to fall. Should many importers be making decisions of this kind, therefore, the “spread” between the spot and forward rates would very likely be narrowed.

A forward premium might also be regarded as excessive by speculators, so that they would hasten to sell the foreign currency “short” for future delivery. In terms of the foregoing illustration, they might be willing to sell large amounts of sterling “short” at \$4.04, expecting to be able to “cover” their transactions by buying the sterling at a lower price in the

spot market sixty days hence. Such sales of speculators would also tend to cause the forward premium to decline, thereby narrowing the gap between forward and spot rates.

Finally, the operations of the commercial banks and other dealers in foreign exchange generally contribute to the elimination of excessive premiums. A bank, believing the forward premium to be out of line, would be inclined to sell liberal amounts of the foreign currency for forward delivery, and, inasmuch as it would probably not be able to hedge its forward sales with forward purchases, it would very likely buy the foreign currency in the spot market to assure its capacity to make delivery. The foreign currency bought in the spot market could be invested temporarily in the foreign money market; thus the willingness of the bank to undertake this kind of transaction would depend, as in the case of the importer mentioned above, upon prevailing rates of interest—rates of interest prevailing in the foreign money market in comparison with those obtaining at home. At any rate, the purchases by the bank in the spot market and its sales in the forward market, once again, would tend to narrow the “spread” between the two sets of rates.

Forward Discounts.—Excessive discounts in rates for forward contracts are also likely to set in motion various kinds of operations which will correct them. Exporters who have accepted time bills in their possession have the choice of selling them at a discount in the spot market, or of holding them to maturity and contracting with the banks for the delivery of the foreign currency when it is received. If the forward discount should appear to the exporters to be excessive, they would very likely sell their bills at a discount in the spot market; their sales would tend, therefore, to drive down the spot rates, while their failure to contract for forward delivery would reduce the forward supply of the foreign currency, tending to cause the forward rates to rise.

Should speculators believe forward discounts to be excessive, they would be anxious to buy foreign currencies for future delivery, expecting to be able to sell the currencies when delivered at a better price in the spot market. Their forward purchases would also tend to cause forward rates to rise.

Finally, the banks and other dealers would be encouraged to negotiate forward purchase contracts in liberal amounts, at the same time permitting their current foreign balances to fall below the customary levels, since they would anticipate replenishing such balances when taking delivery upon the forward contracts. Their willingness to sell beyond normal limits in the spot market and to buy liberally in the forward market would exert a further influence in causing spot rates to fall and forward rates to rise, thereby reducing the discount on forward rates.

Chapter 32

EXCHANGE CONTROL

The Scope of Exchange Control

The decade beginning with the year 1931 saw the gradual disappearance of free foreign exchange markets in all parts of the world, and the introduction of numerous devices imposed by national governments to control international payments. The development began with the financial crisis in Central Europe in the late spring of 1931, and, in the space of a few years, encompassed most of the nations of the world. The outbreak of war in September, 1939, accelerated and intensified the application of exchange restrictions, and caused several important nations, which until then had tried to maintain free markets, to succumb to the universal movement. At the end of 1939, only the United States among the major nations continued to provide a free market; and, subsequently, even the United States, in the interest of national defense and its war operations, introduced a variety of restrictions.

Until our statesmen succeed, therefore, in agreeing upon and putting into effect a workable plan of international monetary reconstruction—a plan which will make possible the elimination of exchange restrictions—the determination of foreign exchange rates can be explained neither in terms of gold parity nor in terms of any theory of purchasing power parity or of automatic adjustments in the balance of payments. Restrictions of all kinds have meant the virtual disappearance of the old mechanisms of the gold standard; and price levels, interest rates, opportunities for profitable investment, and the like have been of minor significance in determining the course of trade. Embargoes upon exports of capital, import quotas governing the movements of merchandise, clearing and payment agreements, blocked accounts, rationed exchange, and all the other phenomena of trade and exchange control have made inapplicable the principles of gold parity, of price level parity, and of balance-of-payments equilibrium through automatic adjustments.

NATURE OF EXCHANGE CONTROL

Exchange control may be defined as governmental action to regulate exchange rates and to restrict the use of the means of international pay-

ment. The actions which a government may take to control exchange include the following: the establishment of official rates which residents of the country must pay to obtain foreign currencies, the rates at which they must sell whatever foreign currencies come into their possession, and the rates at which residents of other countries may be permitted to acquire domestic currency (that is, the currency of the controlling country); other operations—aside from the setting of official rates—to influence exchange rates; the adoption of regulations to require residents of the country to surrender to the government whatever foreign currencies they hold; the allocation of supplies of foreign currencies to applicants for it according to a system of priorities; the enforcement of restrictions upon the use of domestic currency by foreign holders; and the negotiation of agreements with other governments by which payments among them are arranged according to a specific procedure.

It should be noted, at once, that this list omits many additional varieties of governmental actions—the negotiation of trade agreements, the levying of tariff duties, the payment of subsidies, the establishment of import quotas, the licensing of exports, and so on; but the omissions appear to be necessary for the reason that they represent trade promotion and restriction rather than exchange control.¹ While it is true that every regulation of trade affects the supply of and demand for foreign currencies, and often vitally, our interest in the means of international payment does not permit us to go so far afield as to discuss all the phenomena of trade control.

Our list, moreover, excludes certain types of actions which for many decades have been recognized and applied by governments as means of influencing exchange rates and the purchase and sale of foreign currencies. Here we speak of such actions of governments—or of central banks acting in the place of government—as the establishment of monetary standards, the suspension of standards, the devaluation of monetary units, the placing of embargoes upon gold exports, the changing of discount rates, and the open-market buying and selling of securities. All such actions, it is true, tend to cause variations in exchange rates, often of a profound character, but they are generally regarded as instruments of monetary policy, as we have seen,² rather than as means of exchange control. The distinction between the instruments of monetary policy and those of exchange control is found

¹ Thus many of the regulations which were introduced during the war years in the United States may be described as trade rather than as exchange restrictions, although they vitally affected the foreign exchange market. We may include among these the licensing of exports by the Board of Economic Warfare (later the Office of Economic Warfare, and still later, the Foreign Economic Administration), under authority of the act of July 2, 1940; the regulation of imports to favor essential materials by the War Production Board; the issuance of warrants to American and foreign vessels for the use of harbor facilities by the Maritime Commission (later the War Shipping Administration), in accordance with the terms of the Ship Warrants Act of July 14, 1941; the extension of the price regulations of the Office of Price Administration to American goods sold abroad and to foreign goods imported for sale in the United States; and the lend-lease program, which is briefly discussed at a later point in this chapter.

² See Chapters 26–28.

in the fact that the former are used principally to cope with internal monetary problems, so that their effects upon foreign exchange are only incidental, while the latter are employed chiefly for the purpose of improving the controlling country's position with respect to other countries, so that, in a certain sense, the solution of internal problems is only incidental.

OBJECTIVES OF EXCHANGE CONTROL

An outstanding reason for the development of programs of exchange control has been to prevent "flights of capital." A flight of capital is a concerted action upon the part of many owners of physical property, securities, and bank deposits in a country to convert their holdings into the currencies of other countries. Thus a "flight from the pound" means that Britishers as well as foreigners who hold assets in Britain simultaneously attempt to exchange their sterling assets for dollars, francs, pesos, and other currencies. A strong flight of capital, if allowed to progress unchecked, may bring about the exhaustion of a country's gold reserves and its supply of all foreign currencies, at the same time supplying the fuel for serious internal disturbances.

Another important reason why countries have adopted policies of exchange control is to assure the availability of sufficient amounts of foreign currencies to enable them to acquire necessary commodities abroad. Many of the devices of control which were applied throughout the period of the 1930's by many countries engaged in exporting foodstuffs and raw materials, such as most of the countries of Latin America, were designed to further this objective. Normally, these countries are able to import machinery and other manufactured goods by spending foreign balances built up by their exports of foodstuffs and raw materials; but the collapse of foreign markets and the phenomenal decline in prices in the early 1930's led to the serious depletion of their foreign balances. After the outbreak of war in 1939, belligerent countries, in adopting or extending their machinery of exchange control, also had in mind the objective of conserving their supplies of foreign currencies, for they were anxious to restrict the use of such purchasing power to the importation of war materials.

Governments have designed certain kinds of exchange regulations to prevent the use of purchasing power by enemy nations and by their subjects and agents residing in the controlling or neutral countries. Such regulations are typified by the "freezing" of assets held in the United States by residents of the Axis nations and of countries which were overrun by those nations.

Again, governments have restricted operations in foreign exchange for the purpose of acquiring supplies of foreign currencies with which to meet principal and interest payments on their own securities owned by people residing in other countries. The virtual suspension of international lending after 1930 prevented many debtor governments from obtaining new foreign

loans to refund their outstanding bonds, and compelled them instead to rely upon the proceeds of merchandise exports for the foreign balances needed to pay their external obligations.

A further objective accounting for the introduction of exchange control has been the desire upon the part of some governments to stabilize the relationship between their currencies and the currencies of other countries with which important trade relations exist. Thus the nations included in the "sterling bloc" took action to maintain the stability of their rates on London after the suspension of the British gold standard in 1931.

METHODS OF EXCHANGE CONTROL

In setting out to regulate exchange rates and to restrict the use of the means of international payment, a government may determine the details of its program independently, or it may act by agreement with the governments of other countries. It is thus possible to speak of "unilateral" exchange control, on the one hand, and of "bilateral" and "multilateral" exchange control, on the other. The distinction is important, because the widespread development of unilateral control generally means the intensification of economic warfare—each nation, finding itself in difficulties, attempts to work out its own salvation regardless of the repercussions of its actions upon other nations; whereas bilateral and multilateral control is likely to reflect a co-operative effort among nations to save what can be saved in a disastrous situation. We shall find it advantageous, therefore, to consider separately the methods of unilateral control and the methods of bilateral and multilateral control.

Unilateral Exchange Control

EXCHANGE STABILIZATION FUNDS

Origin.—A relatively mild form of exchange control was introduced by Great Britain in April, 1932, with the establishment of its Exchange Equalization Account. This fund was created for the purpose of buying and selling foreign currencies in order to prevent violent fluctuations in the value of the pound resulting from the flow of "hot money" from and to foreign countries. Following the financial crisis in Central Europe in May, 1931, a flight from the pound began, because both British and foreign holders of sterling assets knew that British banks were heavily involved in Germany. The flight from the pound led to the suspension of Britain's gold standard; but with the restoration of calmness in the early months of 1932, the funds which had been drained from Britain in the preceding year began to return. Britain, therefore, faced the prospect of having its exchange rates subjected to violent fluctuations with every movement of panic-stricken "refugee capital." Hence the Exchange Equalization Account was expected, by means of well-planned operations in the foreign exchange market, to

prevent extraordinary fluctuations in exchange rates at times when such capital was flowing inward or outward.

The original resources of the fund amounted to £150,000,000 of British treasury bills, but two additional contributions of such bills, of £200,000,000 each, were made in 1933 and 1937. In 1939, after the outbreak of war, the Exchange Equalization Account took over the entire gold holdings of the Bank of England.

Other countries followed Great Britain in establishing stabilization funds to control the external value of their currencies. The Exchange Stabilization Fund of the United States, supplied with \$2,000,000,000 of gold, was set up on January 31, 1934. Canada followed in 1935 with a fund of \$63,000,000, and Argentina and Belgium established funds in the same year. In the fall of 1936, stabilization funds were set up by the Netherlands, Switzerland, and France.

Operations.—The primary function of stabilization funds has been to prevent those abnormal movements in the external value of the currencies of the respective countries which would ordinarily result from flights of capital and from excessive speculation in exchange. The managers of each fund have been willing, in general, to permit long-term adjustments in exchange rates to take place, that is, adjustments necessary to eliminate fundamental overvaluations and undervaluations of the currency of the controlling country. To illustrate, suppose that at a certain time the rate in New York on London is \$4.00, and that pressure upon the pound is developing which, if allowed to take its course unchecked, will very likely cause the rate to fall to \$3.75. Now if the pressure originates because of a flight from the pound, the fall to \$3.75 would be an abnormal movement and, as such, pernicious. A subsequent return flight would probably carry the rate back to \$4.00, but, in the meantime, much harm would have been done because of the unnecessary fluctuations. Hence the American Exchange Stabilization Fund might well come into the market and buy pounds heavily to arrest the fall. But if a gradual fall in the rate proceeds because the pound at \$4.00 is overvalued (the dollar undervalued)—that is, British goods are unreasonably expensive to Americans, and American goods are unreasonably cheap to the British—then there would be no justification for the interference of the stabilization funds.

The managers of stabilization funds—officials of central banks, officers of the treasury, or a combination of the two—have generally succeeded in avoiding extraordinary risks in buying and selling foreign currencies. The character of their operations has been such that the scales, as it were, have been weighted in favor of profits. In the illustration presented in the preceding paragraph, we said that the American Exchange Stabilization Fund might well come into the market to arrest a fall in the rate in New York on London threatened by a flight from the pound. If the rate had fallen, say, to \$3.98 when the managers of the fund decided that the time had arrived

to take action, they would be buying at a bargain rate, and their very purchases ought to drive the rate back to \$4.00. They could not, it is true, immediately resell the sterling at \$4.00, for that would defeat their purpose, but they could protect themselves by having the sterling converted into gold in London. Later on, should the pound be appreciating abnormally (the dollar depreciating), they could reconvert the gold into sterling and sell the sterling to prevent any further appreciation of the pound—but, considering the original cost of the sterling, they would be selling at a highly favorable rate.

BLOCKED ACCOUNTS

Features of Blocked Accounts.—When a country employs blocked accounts as a means of exchange control, it customarily permits payments to foreigners in terms of its own currency but does not permit such payments to be converted into foreign currencies. It is a means by which a debtor country may continue, at least theoretically, to meet its external obligations, at the same time conserving whatever gold and foreign currencies it may have for the purchase of goods abroad. Moreover, the foreign currencies received in payment for current exports may be used in buying necessary imports rather than in meeting outstanding obligations.

Foreigners who hold bank accounts in the blocking country are not permitted to convert them into the currencies of their home countries; foreigners who hold securities and other property in the blocking country may sell them there and have the proceeds credited to blocked accounts; and foreigners who receive interest and dividends in the blocking country may have them credited to similar accounts. Thus when the blocking country sells goods abroad for foreign currencies, the foreign funds so obtained need not be used for the conversion of the claims represented by the blocked accounts.

The use of the balances held in blocked accounts has been regulated in numerous ways by the countries which have employed such accounts as a device of exchange control. In some instances, it has been possible to invest interest and dividends accumulated in blocked accounts in new long-term securities, to invest blocked balances originating from other sources in such securities, and to employ various kinds of blocked balances—depending upon their origin—for investment in other kinds of property within the blocking countries. Sometimes blocking countries have permitted the use of blocked balances in making partial payments for goods exported. Thus a foreign importer who is buying a quantity of goods in a blocking country might be permitted to pay 75 per cent of their price in his own currency and the remaining 25 per cent from a blocked account. Again, holders of blocked balances have been authorized to use them in meeting expenses while traveling as tourists in the blocking country, or to sell them to others who plan to use them for tourist expenditures there.

Foreign Funds Control in the United States.—By an executive order of President Roosevelt issued on April 10, 1940, a system of "foreign funds control"—resembling in many ways a system of blocked accounts—was introduced in the United States. The President's order forbade, except when licensed by the Secretary of the Treasury, all transfers of credit, foreign exchange transactions, the exportation or earmarking of gold, and all transactions in "evidence of indebtedness and evidences of ownership" involving the property of Norway and Denmark and their "nationals." In other words, all property of Norway and Denmark and their nationals located within the jurisdiction of the United States—including bank balances, securities, and commodities—was "blocked" and could be released only upon the authorization of the Secretary of the Treasury.

The blocked accounts were set up, not to conserve the American supply of foreign currencies, but to protect the interests of the governments and people of Norway and Denmark after the invasion of those countries by Germany. So far as the United States was concerned, Germany was not to profit by the looting of conquered nations. As other countries fell before the invaders, they were added to the list of "blocked nations" subject to the terms of the executive order.

By a second executive order issued on June 14, 1941, foreign funds control was made an instrument of national defense, for the order provided for the blocking of all nations of continental Europe not previously blocked, including Germany and Italy. Thus all transactions subject to the jurisdiction of the United States in which Germany and Italy or their nationals had an interest became subject to licensing; and it was thereafter possible to prevent the use of German and Italian assets located in the United States for financing the activities of fifth columnists and for other purposes regarded as inimical to our welfare.

The Treasury was authorized to issue general and special licenses to permit the use of blocked accounts and to permit transactions with blocked nations and their people when such activities were deemed not to benefit the Axis nations nor to harm American interests in other respects. The system of blocking was not extended to the British Empire or to the countries of Latin America; but certain individuals and firms located in Latin America, because they were thought to be active in promoting the interests of the Axis nations, were placed upon a "Proclaimed List of Certain Blocked Nationals." Transactions with those individuals and firms were prohibited.

EXCHANGE RATIONING

Rationing Procedure.—Used in conjunction with blocked accounts or independently, exchange rationing is a further means by which a country's supply of foreign currencies may be conserved to pay for essential imports. Before 1939, rationing was chiefly used by countries engaged in the exportation of raw materials, for they wanted to conserve the proceeds of foreign

sales for the purchase of manufactured goods for importation; but after the outbreak of hostilities in that year, industrial nations, such as Great Britain and Canada, adopted policies of exchange rationing to accumulate foreign funds—American dollars particularly—with which to buy war materials.

A system of exchange rationing is put into operation by the designation of a central board or agency to which all or a portion of foreign currencies coming into the hands of the residents of the country must be sold, and from which all or a portion of the foreign currencies needed for the payment of imports must be bought. Official rates at which the central board buys and sells are established, with the official buying rate generally slightly lower than the selling rate.

Thus the exporter who receives payment in a foreign currency may be required to sell it to the board, and receive in return domestic currency converted at the official buying rate. An importer who has a payment to make in a foreign currency may be required to buy that currency from the central board, converting domestic money at the official selling rate. In some instances, a free market has been permitted to operate outside the rationing system. If the government favors the exportation of certain kinds of goods, it may encourage the exporters to increase their foreign sales by permitting them to sell in the free market all or a portion of the foreign currencies they receive; on the other hand, people who desire to import goods regarded by the government as nonessential may have to buy their foreign currencies in the free market, where they are more costly.

Official Rates.—The use of official and free rates may be illustrated by reference to the British system of rationing introduced after the outbreak of war. For dollar exchange, Great Britain established an official buying rate of $\$4.03\frac{1}{2}$, and an official selling rate of $\$4.02\frac{1}{2}$. British merchants who received dollar payments for their exports of wool, rubber, tin, jute, whiskey, and other prescribed commodities had to sell the dollars to the Bank of England at the buying rate of $\$4.03\frac{1}{2}$. Thus if a sale to an American importer were made for $\$10,000$, the British exporter, upon selling the dollars to the Bank of England, would receive £2,478 6s 3d. On the other hand, a British importer who bought goods in the United States at a cost of $\$10,000$ would have to buy the dollars at the rate of $\$4.02\frac{1}{2}$, or at a total cost of £2,484 9s 5d. The difference between the two sums due to the spread between the buying and selling rates, £6 3s 2d, reduced by an allowance for administrative expenses, would be profit accruing to the British government.

Now suppose that the rate in the free market at the same time were $\$3.90$. A British exporter of goods not on the prescribed list would be able to sell the dollars received—again, let us say, $\$10,000$ —in the free market, where they would bring £2,564 2s 1d. Thus there was an advantage in selling in the free market. But a British importer who was buying non-

essential goods in the United States for \$10,000 would have to obtain the dollars in the free market, where the total cost would be £2,564 2s 1d,³ an outlay £79 12s 8d in excess of the cost of \$10,000 in the official market. The heavier cost of free dollars would tend to discourage the importation of nonessential goods.

Import Quotas.—Exchange rationing has usually been coupled with a system of import quotas and licenses. The exportation of goods has generally been encouraged in every possible way, but the importation of merchandise other than essentials has often been discouraged or absolutely forbidden. When a system of import quotas and licenses is in effect, a designated board or commission must decide what quantities of various commodities are to be imported over a period of time, what countries are to be favored when purchases are arranged, and what importers in the home country are to do the buying abroad. Import licenses are then granted according to the quotas established, and goods are not permitted to pass the customs unless they have been licensed, nor are the importers able to obtain the foreign currencies to make payment unless they have previously obtained licenses. In this way, people who desire to import luxury or other non-essential goods for personal use may be easily denied access to the foreign currency with which to make payment.⁴

Lend-Lease.—Pressure upon the United Nations to maintain stringent systems of exchange rationing was greatly reduced during the period of the Second World War by the operation of the American lend-lease program. The program was originated with the principal objective of supporting the efforts of Great Britain to halt the march of the Axis aggressors—it came into operation at a time when the exhaustion of the gold and dollar resources of Great Britain threatened to cut her off from the American market as a source of war materials, foodstuffs, and other supplies. Subsequently, lend-lease assistance was made available to most of the other United Nations.

The Lend-Lease Act of March 11, 1941, empowered the President to authorize the heads of federal departments and agencies to "sell, transfer title to, exchange, lease, lend, or otherwise dispose of" any defense article to any country whose safety he might deem vital to the protection of the United States. An original appropriation of \$7,000,000,000 was voted for the purposes of the legislation, and that figure was multiplied several times by subsequent enactments; in addition, funds appropriated in the regular course to various federal departments could also be used for lend-lease operations.

The principal operations of the lend-lease program were abruptly discontinued late in August, 1945. To October 1, 1945, total lend-lease grants amounted to \$46,040,000,000, of which \$30,269,000,000 had been provided to

³ Disregarding the gross profit margin of the bankers, which would make the total cost somewhat higher.

⁴ For various methods of applying import quotas, see P. T. Ellsworth, *International Economics* (New York: The Macmillan Company, 1938), pp. 382 ff.

the British Empire, \$10,801,000,000 to Russia, \$1,407,000,000 to France, \$632,000,000 to China, and \$421,000,000 to the American republics. Through June 30, 1945, "reverse lend-lease"—provision of supplies to the United States by allied nations on a lend-lease basis—totaled \$6,257,000,000.⁵

Bilateral and Multilateral Exchange Control

COOPERATION IN MANAGEMENT OF STABILIZATION FUNDS

The only important type of multilateral exchange control which has been employed in recent years has been cooperation in the management of exchange stabilization funds; other means of cooperation among nations have been undertaken upon a bilateral basis. Very early in the career of exchange stabilization funds, statesmen realized that the funds could be used by each country in attempts to gain trade advantages at the expense of other countries. If a stabilization fund had the capacity to stabilize the external value of a currency, it might also be able to depress it. By continued heavy buying of dollars and francs, for example, the managers of the British Exchange Equalization Account could cause the dollar and franc rates to rise; and, in view of the reciprocal relationship among rates, this would mean a fall in the rates on London in New York, Paris, and other cities. Such a deliberate depreciation of the pound would make Britain a cheaper place in which to buy many kinds of goods, and buyers would probably turn to the British market rather than, say, to that of the United States or France. As a matter of fact, it is the general consensus that, in the early months of its operations, the British fund was used to further such an objective.⁶

The advantages gained by the deliberate depreciation of a currency are normally short lived, for other countries are not likely to stand by and see themselves cut off from world markets; on the contrary, they are to be expected to retaliate in every possible way against the country which adopts the policy of deliberate depreciation. Thus a "currency war" may result. A realization of this fact led to the conclusion of a pact between Great Britain, France, and the United States on September 25, 1936, known as the Tripartite Agreement. Belgium, the Netherlands, and Switzerland subsequently participated in observing its terms. The agreement was significant in that it was a disavowal by the signatory nations of any intention of pursuing a policy of exchange depreciation. It meant, in short, that the six nations would cooperate with one another in promoting exchange rate stability, instead of carrying on currency warfare for selfish advantage.

In view of the introduction by the major nations of more direct devices of exchange control because of the outbreak of war, the operations of

⁵ *Twenty-first Report to Congress on Lend-Lease Operations*, pp. 11, 19.

⁶ For a contrary opinion, however, see Paul Einzig, *World Finance, 1935-1937* (New York: The Macmillan Company, 1937), p. 107.

exchange stabilization funds have been of little importance since September, 1939.

PAYMENT AGREEMENTS

A payment agreement may be described as an exchange rationing agreement, for it requires one of the contracting countries to ration exchange in order that it may be able to make certain payments to a second country. The typical payment agreement is designed to assure the capacity of a debtor country to meet interest, dividend, and principal requirements upon its outstanding securities held in a creditor country. The securities mentioned may be the bonds of the governmental bodies of the debtor country or the stocks and bonds of business firms which operate there, and they are generally held by private investors in the creditor country, rather than by the government of that country. The weapon used by the creditor country to force the debtor nation to agree to ration exchange is its threat to discontinue buying goods in the debtor's markets if the proposed agreement is rejected.

To take a typical illustration, let us consider the objectives of the payment agreement concluded between Great Britain and Argentina in 1933. Residents of Great Britain owned large volumes of securities issued by governmental bodies and business firms of Argentina, and, at the same time, British importers were heavy buyers of raw materials and foodstuffs offered for sale by Argentine individuals and firms. In the absence of a payment agreement, the money spent by British importers in buying commodities in Argentina could have been used by Argentina and its people in any way they chose. They could have spent the sterling received in payment from Great Britain to import large quantities of manufactured goods from, say, the United States, and, indeed, they could have used it to pay interest, dividends, and principal upon securities held by residents of the United States, leaving them nothing to meet their obligations upon the securities held in Great Britain. In these circumstances, therefore, Great Britain could hardly be criticized for approaching Argentina with proposals for a payment agreement—in effect, it stated its willingness to continue buying goods in Argentina only if the latter agreed to use the proceeds of such purchases to buy manufactured goods from British exporters, and to meet its obligations upon the securities held by British investors.

CLEARING AGREEMENTS

A clearing agreement is an arrangement between the governments of two countries by which each undertakes to make payments to its exporters in its own currency out of the payments which it receives from its own importers. Thus a clearing agreement completely suspends the normal operations of the foreign exchange market; indeed, when clearing agreements encompass all the international commercial transactions of a country, it may be said that no foreign exchange market exists,

The contracting governments must come to an understanding regarding the priorities which will be recognized when payments are made out of the balances built up through payments by importers—a certain portion will be used to pay for exports of merchandise to the second country, another portion to meet interest, dividend, and perhaps principal requirements upon securities of the second country held in the first, a certain portion to pay for expenditures of tourists of the second country while visiting in the first, and so on. Moreover, the governments will usually find it convenient to designate a rate of exchange for their transactions, although the rate may be quite different from whatever official and free rates obtain with respect to transactions with third countries. In the application of the clearing agreement, then, the importers of each country make payments in domestic currency into a fund which is maintained within the country, and the fund so accumulated is used to make payments to other residents of the country according to the established system of priorities.

To illustrate, let us suppose that the United States and Great Britain enter a clearing agreement and a rate of exchange of \$4.00 is stipulated.⁷ An American importer who bought goods from a British concern billed at £5,000 would pay \$20,000 into a special account kept, probably, with the Federal Reserve Bank of New York. The British exporter at the same time would receive £5,000 from a similar special account maintained at the Bank of England. Likewise, an American exporter who sold goods worth \$40,000 to a British importer would be paid that sum from the American account, and the British importer would pay £10,000 into the British account. Payments and receipts originating in service transactions, and in certain kinds of capital transactions, could be managed in similar fashion, although a close control of all varieties of transactions would be necessary to avoid extraordinary surpluses and deficits in the accounts. For moderate surpluses and deficits, the clearing agreement would include stipulations for their disposal.

⁷ Although the illustration is a hypothetical one, it may be mentioned that Great Britain began to make extensive use of clearing agreements after the outbreak of the Second World War. Seventeen such agreements were arranged in the year 1940 alone. See Thomas R. Wilson, "British Financial Agreements with Foreign Countries," *Foreign Commerce Weekly*, April 5, 1941, pp. 5-6.

Chapter 33

INTERNATIONAL MONETARY RECONSTRUCTION

As successes for the military forces of the United Nations multiplied on all battle fronts, the people of those nations came more and more to devote their attention to the formulation of plans for the building of the better world for whose coming all fondly hoped. Much of the planning concerned the reconstruction of international monetary facilities, and important emphasis was placed upon the restoration of a large measure of freedom in foreign exchange as a means of smoothing the path toward international economic stability. Statesmen and their advisers early recognized that success in re-establishing freely interchangeable currencies at relatively stable rates could be achieved only after a group of extremely complex problems had been dealt with. These problems were—and, in many respects, continue to be—chiefly the following: (1) the determination of the position of gold in reconstructed monetary systems, (2) the reconciliation of reasonable stability in exchange rates with internal monetary management, (3) the determination of the initial pars of exchange for the respective monetary units, (4) the removal of exchange controls, (5) the redistribution of monetary gold, and (6) the restoration of freedom in foreign trade. The manner in which these problems have been attacked in the establishment of new international monetary and banking facilities—the International Monetary Fund, the International Bank for Reconstruction and Development, and, in a limited way, the American Export-Import Bank—will be our principal concern in the present chapter. Before proceeding with a description of the structure and functions of the new institutions, however, we shall find it advantageous to devote some space to an analysis of the problems themselves, so that we may understand more clearly the difficulties with which the builders of the new institutions had to cope.

Problems of Reconstruction

POSITION OF GOLD

Although the gold standard was subjected to endless criticism during the period between the two great wars, the monetary difficulties with which the world struggled during that period did not lead to the discovery of any

universally acceptable substitute for gold as an international medium of exchange and standard of value. Advocates of international bimetallism, of managed monetary systems divorced from gold, and of other alternatives put forth the merits of their specific proposals in glowing terms, but they were unable to gain a wide following. The large majority of statesmen, economists, and financiers in most of the countries of the world firmly held to the belief that the restored international monetary facilities of the postwar period could be built only upon a gold foundation.

But the mere agreement that some form of the gold standard should be re-established left many questions unanswered. Should the restored gold standard be one of "automatic" character which requires strict adherence to certain "rules of the game"? Or is it possible to manage domestic monetary systems on the basis of independent policies while using gold as an international medium of exchange and standard of value? If all nations are to have a gold basis for their currencies, how shall the monetary gold stock be redistributed in an equitable fashion? What gold value shall be assigned to each currency, so that initial exchange rates may be equitable? Should fixity of exchange rates be accepted as a long-range goal or should the gold value of currencies—and therefore the pars of exchange—be subject to frequent alteration? In view of the fact that exchange controls and the free interchange of currencies on a gold basis are incompatible, how can existing exchange controls be removed? How can a restored gold standard be protected from the dangers which arise when disequilibriums develop in balances of payments?

INTERNAL MONETARY MANAGEMENT

The experiences of the period between the two wars convinced the authorities of many national governments and the officials of their central banks that a large measure of internal monetary management is essential for a stable economic society. The interests of statesmen and economists are now centered upon the prospects of stabilizing business activity, and they recognize that such a goal requires, as far as possible, the insulation of internal monetary affairs from forces originating outside the individual country. Yet they also recognize that full employment and advancing planes of living depend, in most countries, upon a large volume of unimpeded foreign trade—an objective which requires stability in the relationship between currencies. The problem, then, has been to construct monetary arrangements through which the advantages of domestic monetary management and of abundant foreign trade may be gained simultaneously.

Statesmen and their advisers have sought a solution in terms of a restoration of gold as an international medium of exchange and standard of value and, at the same time, a permanent divorcement of the domestic monetary system from a gold foundation. It is necessary to express the monetary unit of each country in terms of gold, but it is not necessary to

have gold coinage or the free domestic circulation of gold coins or gold bullion. A free international gold market can be maintained even though strict limitations are placed upon the internal market. The central bank or the national treasury should be willing to buy any quantity of gold offered at its established price; it should stand ready to sell any quantity at the established price for use in making legitimate payments to foreign countries; and ordinarily it should freely supply gold for use in the arts at home. On the other hand, a modified gold standard need not permit the release of gold to individuals for hoarding either at home or abroad; thus the domestic credit money need not be redeemable, save when gold is required for international payments or for the domestic arts. A modified international gold standard, finally, need not require the designation of gold as legal tender within any country.

Such a solution requires the adjustment of the gold value of currencies from time to time, so that the position of each country in foreign trade need not be substantially disturbed because the country's policies of internal monetary management differ from those of other countries. Thus if the monetary managers of the United States were to have for their objective a stable price level, our export markets would be likely to vanish if other countries were to permit their price levels to fall. The United States would become an expensive place in which to buy, while other markets would be relatively cheap. In the operation of the "old" gold standard, such a situation would have called for drastic internal readjustments by the United States to force our price level down; in this way, our position in foreign markets could be maintained without disturbing the parity of exchange rates. In the operation of a modified gold standard, however, the difficulty could easily be met by a reduction in the external value of the dollar, that is, by an increase in the purchasing power of foreign currencies in our market to compensate for the fact that our price level was out of line. If the objection is made that continual changes in the gold value of currencies—and in exchange rates between nations—would obstruct foreign trade because of uncertainty as to the future worth of domestic currency in terms of foreign currency, it may be answered by stressing the fact that in the past buyers and sellers in the domestic market, who are much more important in the aggregate than the foreign traders, have suffered from the effects of internal price fluctuations. In any case, frequent changes in the gold values of currencies and in exchange rates should not be necessary, for it is to be presumed that the monetary authorities of each country, in the management of their system, would be striving for the stability of the internal price level.

In envisaging the operation of an international gold standard characterized by changeable gold values of monetary units, the planners have recognized the absolute necessity of having an international agreement respecting the magnitude and proper timing of alterations in gold values; they have recognized that, in the absence of such an agreement, "currency wars" by

which each country would try to gain an unfair advantage would very likely ensue. The excessive reduction in the gold value of a country's monetary unit—excessive in the sense that it would not be justified by comparable price levels—would make that country a cheap place in which to buy; and other countries would be under compulsion to reduce the gold values of their monetary units in order to remain in competition. In this way, it is clear, the new standard could not long survive.

INITIAL PARS OF EXCHANGE

Another problem which the builders of the new international financial institutions had to face was the designation of a gold value for each currency—which meant, also, the determination of the initial pars of exchange between the various currencies. Despite the general suspension of the gold standard in the early 1930's, the monetary laws of many of the nations of the world were not changed basically, and statute books continued to declare the gold value of currencies to be something which, in many instances, had become entirely fictitious; nobody, therefore, seriously advocated that such monetary laws should be revived in their existing form. But if new gold values were to be assigned, at what levels should they be placed? Because any designation of the gold value of a currency may immediately overvalue or undervalue it in relation to other currencies, each country thinks it necessary to proceed with extreme caution in agreeing to an initial value. Countries which place emphasis upon the expansion of export markets are likely to favor the undervaluation of their currencies, and those which are anxious to import large quantities of goods are tempted to set relatively high gold values for their currencies.

In the actual development of plans for international monetary cooperation, however, the difficulties of establishing initial gold values for the various currencies were materially reduced because the planners were looking toward an international agreement that the gold values of currencies could be altered from time to time to correct original errors as well as to compensate for developing disequilibriums in balances of payments. Upon the general acceptance of such an agreement, each country could feel that it was not committing itself to a long-run obligation to maintain what might turn out to be an absurd value; it could proceed on the premise that the initial value was only a tentative one—one that it could change as economic developments might warrant.

REMOVAL OF EXCHANGE CONTROLS

A restored gold standard, the planners knew, could not be made to function freely and smoothly the moment that an international agreement was concluded for its re-establishment and for the declaration of initial par values of currencies. Blocked balances can be unblocked only gradually, exchange rationing can be eliminated only after controlling countries have

satisfied their most pressing needs for imported goods, and other exchange controls can be relaxed only after individual economic systems have made substantial progress toward reconstruction and stability.

The continuation of exchange controls was accepted, therefore, as a necessary feature of the period of transition from war to peace. At the same time, however, the planners stressed the fact that any so-called restoration of the gold standard would have little meaning if the nations of the world did not conscientiously work to remove the controls as quickly as possible. If some major nations come to the conclusion that they gain material advantages in retaining controls, and if they resist all inducements to remove them, other countries will also come to the decision that exchange controls must be maintained or introduced. Much, therefore, depends upon the prevalence of a spirit of cooperation among nations—a spirit of cooperation which will prompt them to forgo temporary advantages in the interests of long-run international prosperity.

REDISTRIBUTION OF MONETARY GOLD

The restoration of an international gold standard presupposes an equitable distribution of the world's stock of monetary gold, but the procedure by which a redistribution may be brought about has posed many difficult questions. If the gold link between currencies is to be maintained continuously upon a sound basis, each country must have sufficient reserves to enable it to meet net payments due to foreigners on international account. It is true that an institution such as the International Monetary Fund may provide credit facilities to enable debtor countries temporarily to equilibrate their balances of payments; nevertheless, most countries cannot feel that their position upon the gold standard is very secure unless they have access to reasonable quantities of the metal itself.

Because the United States holds approximately half of the total world gold stock, the discovery of means of redistribution has appeared to be primarily our task. Although our gold holdings were substantially reduced during the period of the Second World War, and although foreign governments and central banks hold large deposits in the United States which are presumably payable in gold, the fact remains that our unencumbered gold reserves are far beyond what we are likely to need in making international payments in the foreseeable future. All prospects for the next few years presage the heavy sale of American goods for reconstruction and development abroad, so that the normal tendencies will be for our gold holdings to increase rather than to diminish.

If, then, we must provide other countries with a portion of our gold reserves so that the metal may be widely used as a means of international payment, how are we to proceed? The gold could be redistributed gradually if the United States were willing to buy from foreign countries goods of greater total value than we sell to them. However, it would be no easy mat-

ter for us to accept an "unfavorable" position in foreign trade—the United States is so largely self-sufficient in the production of both raw materials and manufactured goods that the importation of large quantities of foreign products would severely injure many of our own industries. To develop an "unfavorable" balance of trade, we would find it necessary drastically to reduce our tariff schedules—but many of our protected industries could not survive. It is sometimes glibly said that, should we have a low tariff or none at all, we could readjust our industrial facilities for the production of those things we are best able to produce while importing other goods from abroad. But a readjustment would cause profound disturbances within the country, and would require the waste of capital equipment already installed and of labor skills already acquired. And the spirit of nationalism, which demands increased national self-sufficiency, is not likely to disappear quickly in the near future.

The granting of loans to foreign countries also offers no easy way out of the dilemma. Gold itself could be loaned to foreign governments or it could be made to flow into foreign treasuries through the heavy purchase by American investors of the securities of foreign industrial companies. In either case, however, comes the question as to how interest on the loans and the eventual principal repayments would be made. Unless the gold itself were to be shipped back to the United States for such payments, debtor countries would have to sell goods here in value greater than that of their purchases to acquire dollar balances out of which interest and installments on the principal could be paid. But, again, the prospects of voluminous sales of foreign goods in the United States run into conflict with our policy of striving to expand our sales in foreign markets while limiting imports by high tariffs.

FREEDOM OF FOREIGN TRADE

The foregoing discussion of the problems which have been faced—and which continue to be faced—in the restoration and maintenance of international monetary facilities shows that they are inextricably united with the problems of foreign trade. This is necessarily so, for, after all, we are speaking of the redesignation of gold as an international medium of exchange—a medium, that is to say, for the exchange of goods. Thus it becomes somewhat absurd to canvass the prospects of using gold as an international medium of exchange if we discover that the countries of the world do not want to exchange goods—if they insist upon the erection of all kinds of barriers to the free movement of goods. We cannot avoid the conclusion, therefore, that no international monetary system, no matter how beautifully it may be designed, will work well if the movement of goods is ruthlessly impeded as it has been in the past.

As we have already indicated, much depends upon the policy of the United States. We have long stressed the importance of developing export

markets, but we have looked with misgivings upon the expansion of imports. Too often have we forgotten the simple fact that we cannot continue to sell abroad unless, by also buying abroad, we supply foreigners with purchasing power with which to pay for our goods. Too often have we lulled ourselves into a feeling of complacency by granting loans to foreign interests to enable them to buy our goods, coming to realize the absurdity of our position only when the loans have been defaulted. Our status as the world's greatest creditor nation requires us to revamp our foreign trade policy so that we may import goods of greater value than we export. Such a revamping, as we have said, cannot be easily accomplished, for it would require far-reaching internal adjustments among our industries. And it is likely to be all the more difficult in the immediate future for the simple reason that debtor countries, because of war devastation, will be unable to produce large surpluses of goods for sale here, but instead will be wanting to buy heavily from us for current needs and for reconstruction.

Establishment of the International Fund and Bank

On April 7, 1943, the United States Treasury published a proposal for an international stabilization fund, and on the following day the British government announced a plan of similar character for an international clearing union. The American plan soon came to be known as the "White plan" because it was prepared by Dr. Harry D. White, who was then the director of the Treasury's Division of Monetary Research, and the British proposal as the "Keynes plan" because it was prepared by Lord Keynes, the world-famous economist who was an adviser to the British Treasury. On June 9, 1943, still a third proposal was published by the Canadian government—a proposal which was designed to chart a middle course between the White and the Keynes plans; and on July 10, 1943, the American Treasury published a revision of the White plan. Later in the same year—on November 24—the American Treasury announced proposed articles of agreement for the establishment of a bank for reconstruction and development. Meanwhile, considerable interest had been aroused by the publication of articles by Professor John H. Williams, of Harvard University, in which was proposed a "key-currencies approach" to the solution of the problems of international monetary stabilization.¹

¹ Because many of the features incorporated in the final articles of agreement of the International Monetary Fund were drawn from the White, Keynes, and Canadian proposals, a separate discussion of the three plans appears to be unnecessary; indeed, it would very likely be the source of much confusion. Since the "key-currencies approach," on the other hand, was set forth in opposition to the establishment of elaborate new financial machinery, it deserves a brief summary. In the program of the proponents of the key-currencies principle, the problems of postwar monetary reconstruction were to be met by piecemeal arrangements as conditions might warrant, rather than by the inauguration of a comprehensive plan which might seek immediately to anticipate and solve all difficulties. Such theorists expressed their fear that an organization such as the International Stabilization Fund of the White plan or the International Clearing Union of the Keynes plan would become thoroughly discredited in trying

Following the publication of the various plans, discussions and conferences among statesmen and monetary experts of the United Nations continued for approximately a year, and they culminated in the publication, on April 21, 1944, of the "Joint Statement by Experts on the Establishment of an International Monetary Fund of the United and Associated Nations"—a statement which sought to summarize the proposals upon which full agreement could be had immediately and to reconcile divergent views upon other matters. The joint statement served as a basis for the work of the United Nations Monetary and Financial Conference which had been called by President Roosevelt and which carried on its deliberations at Bretton Woods, New Hampshire, in the period from July 1 to July 22, 1944. Out of the deliberations of the conference came specific articles of agreement for the International Monetary Fund and for the International Bank for Reconstruction and Development.

The forty-five nations represented at Bretton Woods were made eligible for original membership in the fund and bank provided that they accepted membership by December 31, 1945. The respective articles of agreement of the fund and bank stipulated that each institution should come into being when membership had been accepted by nations whose combined subscriptions to the capital of each—as determined by the "quotas" set up at Bretton Woods—equaled 65 per cent of the total capital. In the adoption, on July 31, 1945, of the Bretton Woods Agreements Act, the United States became the first nation to take formal action to accept membership and to establish the framework within which the responsibilities of membership could be fulfilled. Our leadership in adopting the enabling legislation gave evidence of the extraordinary change which had taken place during the war years in the attitude of the American people toward international "entanglements"; it indicated, in the sphere of finance at least, the deliberate rejection of our

to cope with the monumental difficulties of the period of transition from war to peace, and that, as a result, the peoples of the world would become disillusioned with the prospects of international cooperation and would return to a policy of independent decision in the monetary sphere. They suggested, therefore, that the establishment of an international monetary fund or union be deferred until a reasonable degree of equilibrium in balances of payments had been restored—until such time as the maladjustments and dislocations produced by the war had been removed.

On the positive side, the supporters of the key-currencies idea held that a profoundly important step toward the restoration of order in the international monetary sphere could be taken simply by stabilizing the rates of exchange between the leading currencies of the world, and particularly between the dollar and the pound. If the United States and Great Britain could agree upon a par of exchange, and if they were willing to shape their internal monetary policies in unison so that the par could be continuously maintained, then not only these two countries, but all countries, would have stable international currencies in terms of which they could carry on their commercial activities. Then as France, China, and other countries put their houses in order, they could "tie in" their currencies with the already established dollar-pound parity. In this way, a gradual restoration of the normal mechanisms of foreign exchange could be accomplished. The countries whose position in foreign trade is not very important could, indeed, be allowed considerable latitude in making and changing their links with the key currencies; their action would not seriously disturb the course or volume of international trade, and, at the same time, such countries—relatively undeveloped debtor countries—would be able to make adjustments from time to time to meet difficulties to which they are peculiarly subject.

prewar policy of isolationism. The legislation authorized the President to accept membership for the United States in the fund and bank, and it directed the Secretary of the Treasury to use \$1,800,000,000 of the Exchange Stabilization Fund set up by the Gold Reserve Act of 1934 in paying a portion of our subscription to the fund, and to use other treasury cash—obtained, if necessary, by the sale of regular obligations—in meeting the balance of the subscription to the fund, as well as subscription payments due the bank. By late December, 1945, nations responsible for approximately 80 per cent of the total subscriptions of the fund and bank had signified their intention to become members, and their representatives signed the respective articles of agreement in Washington on December 27; on that day, therefore, the fund and bank were officially established. By the end of September, 1946, only Russia, Australia, New Zealand, Venezuela, Haiti, and Liberia, of all the nations represented at Bretton Woods, had failed to accept membership in the fund and bank. Colombia stood alone in accepting membership in the fund only.

The International Monetary Fund

The agreement drawn up at Bretton Woods for the establishment of the International Monetary Fund declared the purposes of the fund to be the promotion of international monetary cooperation, the facilitation of the expansion of international trade so that high levels of employment and real income may be reached in the member nations, the promotion of exchange stability, the establishment of a multilateral system of international payment and the removal of exchange restrictions, the creation of confidence among member nations that they will be able to correct maladjustments in their balances of payments while avoiding measures destructive of national and international prosperity, and the mitigation of the disturbances which result from disequilibriums in international balances of payments. Such a statement of purposes, accurate though it may be, is likely to lead to a false conception of the functions of the fund unless one clearly understands that the facilities of the fund are designed to supplement, rather than to supplant, the ordinary international banking machinery which has taken care of international payments in the past.

The agreement envisages the continuance of the commercial banks as the principal dealers in foreign exchange and the management of most international payments through their facilities. The commercial banks will continue to build up their own balances with correspondents in foreign countries, and will continue to supply sight drafts, cables, and other instruments to importers and other parties who have payments to make abroad. It is only when the commercial banks exhaust their foreign balances and are unable to replenish them in the customary way that the resources of the International Monetary Fund are to be tapped. At such a time, the

central bank or other fiscal agent of a member country may buy the desired foreign currencies from the fund, and, in turn, it may make available to the domestic commercial banks the foreign currencies so obtained. In times past, a shortage of foreign currencies which could not be overcome in any other way required the shipment of gold to the countries in which deposit balances for the commercial banks were desired. Now, however, the facilities of the fund make it possible for a country to obtain foreign balances not only by selling gold to the fund but also by buying the foreign currencies in exchange for its own currency.

QUOTAS AND SUBSCRIPTIONS

Each country, upon becoming a member of the fund, is allotted a "quota" on the basis of which its subscription to the capital of the fund, its voting power, and its capacity to use the resources of the fund are determined. Quotas for the forty-five nations represented at Bretton Woods—

TABLE 40

QUOTAS AND VOTING POWER IN THE INTERNATIONAL MONETARY FUND
IN MARCH, 1946

Country	Quotas		Voting power	
	Amount (in millions of dollars)	Per cent of total	Number of votes	Per cent of total
United States.....	\$2,750	37.2	27,750	33.1
United Kingdom.....	1,300	17.6	13,250	15.8
China.....	550	7.4	5,750	6.9
France.....	450	6.1	4,750	5.7
India.....	400	5.4	4,250	5.1
Canada.....	300	4.1	3,250	3.9
Netherlands.....	275	3.7	3,000	3.6
Belgium.....	225	3.0	2,500	3.0
Latin-American members.....	469.5	6.3	8,945	10.7
All other members.....	678	9.1	10,280	12.3
Totals.....	\$7,397.5	100.0	83,725	100.0

Source: *Federal Reserve Bulletin*, April, 1946, pp. 365, 371.

except for Denmark, for which the determination of a quota was postponed—were set up at the conference, and the quotas of other nations which become members are determinable by the fund. The total quotas of the nations which had accepted membership by the end of March, 1946, amounted to \$7,397,500,000, and the individual quotas ranged from the \$2,750,000,000 of the United States to the \$500,000 of Panama. The principal quotas are listed in Table 40.

The subscription of each member to the capital of the fund is equal to its quota. As a general rule, 25 per cent of each subscription is payable in

gold, and 75 per cent in the domestic currency of the member. However, exceptions with respect to each portion of the subscription are possible. The portion of the subscription payable in gold may be reduced if the full payment in gold would be too burdensome in view of the member's holdings of gold and United States dollars. Moreover, the fund is authorized to accept, in lieu of the currency of members, nonnegotiable non-interest-bearing notes or obligations of members or of their fiscal agents which are payable at par value upon demand by the fund; such a substitution is permitted when, in the opinion of the fund, the actual currency is not needed for its operations.

Quotas are subject to review at five-year intervals by the fund—and at other times as well, upon the request of members—and they are to be adjusted in keeping with the changing international situation with the consent of the members concerned and with the approval of governors of the fund having four fifths of the total voting power. Increases in quotas—and therefore in subscriptions—require further payments in gold and local currency by the members to the fund, and decreases require the fund to return gold and local currency to the members concerned.

PAR VALUES

Initial Determination.—Because one of the principal objectives of the Bretton Woods agreement is the easy interchange of currencies of member countries for the settlement of obligations arising on current account, much attention is given in the agreement to the determination and maintenance of par values on the basis of which the currencies are made exchangeable for one another. Each original member undertook to express the par value of its currency in terms of gold or—what amounts to the same thing—in terms of United States dollars of the weight and fineness in effect on July 1, 1944; such a declaration was to be based upon exchange rates which had prevailed at a stipulated time. The par value so designated was accepted as official for transactions with the fund unless the member also notified the fund that it regarded the par value as unsatisfactory, or the fund notified the member that it believed the proposed par value to be prejudicial to the fund itself or to other members. Upon the condemnation of the proposed par value, the fund and the member had to consult with each other in an effort to agree upon a suitable par value, but failure to reach an agreement within a reasonable time meant the termination of membership.

For those countries which become members without having the privileges of original membership, initial par values are determined according to terms and conditions laid down by the fund.

Transactions Based upon Par Values.—After the par value of its currency has been established, a member is under obligation not to buy gold at a price in excess of the par value increased by a margin prescribed by the fund, nor to sell gold at a price below the par value reduced by the pre-

scribed margin. At the same time, each member undertakes to permit spot exchange transactions within its territories between its currency and the currencies of other members only at rates which vary from parity by not more than 1 per cent, and to permit other exchange transactions only at rates which vary from parity by not more than 1 per cent increased by whatever additional margin the fund regards as reasonable. By the enforcement of these regulations, the gold value of the various currencies should be constantly maintained. While fluctuations in exchange rates are permitted within the prescribed margins, they should be no more disturbing to exchange stability than were those which could take place within the gold import and export points in the operation of the "old" gold standard.

Changes in Par Value.—A member may propose to the fund a change in the par value of its currency if it comes to feel that the existing par value leads to a fundamental disequilibrium in its balance of payments, that is, if it comes to feel that its currency is substantially overvalued or undervalued in the sense that the goods available in its markets for export are unduly expensive or unduly cheap. The member undertakes to discuss with the fund the reasonableness of the proposed change, but the fund is not entitled to object if the change, together with all previous changes, does not exceed 10 per cent of the initial par value.

A change in par value beyond the 10 per cent limit must have the specific approval of the fund, although the fund is under obligation to approve such a change if it is satisfied that it is necessary to correct a fundamental disequilibrium. Moreover, the fund must not object to a change in the par value of a currency merely because it does not like the domestic social or political policies of the member which proposes it. A member which changes the par value of its currency beyond the 10 per cent limit despite the objections of the fund becomes ineligible to use the resources of the fund (unless the fund decides otherwise), and it becomes subject to expulsion if the matter is not adjusted to the satisfaction of the fund within a reasonable time.

The fund, in turn, may propose uniform changes in the par values of the currencies of all members. The adoption of such a proposal would not produce any variations in exchange ratios of the currencies among one another, but it would increase or reduce the expansibility of the world's stock of monetary gold. A uniform change must have the approval of a majority of the total voting power of the fund as well as the approval of each member which has 10 per cent or more of the total of all quotas. Moreover, the change cannot be ordered with respect to the currency of any member if it notifies the fund, within seventy-two hours of the fund's decision, that it does not want to have the par value of its currency altered. Uniform changes of the type described here are excluded in the determination of the 10 per cent limit upon piecemeal changes.

Changes in par value—including uniform changes, unless the fund

otherwise decides—require adjustments in the fund's holdings of the respective currencies. If the par value of a member's currency is reduced, or if the fund is of the opinion that the member's currency has depreciated to a significant extent within its own territories, the member must pay into the fund an amount of its own currency equal to the reduction in the gold value of the fund's holdings of that currency. On the other hand, when the par value of a currency is increased, the fund must return to the member concerned an amount of its currency equal to the increase in the gold value of the fund's holdings of that currency.

OPERATIONS OF THE FUND

Purchase and Sale of Currencies.—The principal function of the International Monetary Fund is to buy and sell the currencies of member countries. It is set up as a merchant in currencies. Its original "stock in trade" is supplied from the subscriptions of the member countries which place to the credit of the fund, at their central banks or other approved depositaries, the portion of their subscriptions payable in local currency. These deposits, as well as those which it acquires in the normal course of its business, the fund is free to sell to member countries in exchange for gold or for the currencies of the buying countries. Thus if the fund sells dollars to the Bank of England, its balance at the Federal Reserve Bank of New York is decreased while its balance at the Bank of England—unless the Bank of England pays in gold—is increased. Except where gold is involved, therefore, each transaction between the fund and a member results in a decrease in the fund's holdings of the currency desired and an increase in its holdings of the currency of the buying country.

Only the fiscal agencies designated by member countries—such as their treasuries or central banks—have access to the resources of the fund. For this reason, the commercial banks and other parties must approach the fund, as one might say, through the intermediary of the designated fiscal agencies. Thus if the commercial banks of a member run short of balances on deposit with the commercial banks of another member, they may ask the home central bank to obtain for them from the fund a supply of the desired currency. The central bank has the capacity to purchase the currency from the fund and to resell it to the local commercial banks.

Capacity of Members to Buy Currencies.—A member which has not been declared ineligible to use the resources of the fund may, as a general rule, buy foreign currencies from the fund, in exchange for its own currency, for any purpose which is consistent with the provisions of the Bretton Woods agreement. But the capacity of each member to buy currencies is by no means unlimited, for precise provisions are included in the agreement establishing a mathematical relationship between the member's quota and the volume of foreign currencies it may buy. Two basic rules apply, namely, that the purchases of foreign currencies by a member within any

twelve-month period must not cause the fund's holdings of the member's currency to increase by more than 25 per cent of the member's quota, and that the purchases must not cause the fund's holdings to exceed 200 per cent of the quota. Thus if the fund holds \$300,000,000 of the currency of a member whose quota is \$400,000,000, that member is eligible to make net purchases of other currencies at a cost of \$100,000,000 (25 per cent of its quota) within a period of twelve months; but if the fund holds \$750,000,000 of the buying member's currency, the member's net purchases are limited to \$50,000,000, since the acquisition of that amount by the fund would bring its holdings to 200 per cent of the member's quota. The 25 per cent limit applies, however, only after the fund's holdings of a currency have reached 75 per cent of the member's quota. Thus, continuing the illustration, if the fund's holdings of the member's currency amounted to \$250,000,000 at the beginning of a twelve-month period, the member would be entitled to buy other currencies at a cost in its own currency of \$150,000,000, for the acquisition of that sum by the fund would make its holdings equal to 25 per cent of the member's quota in excess of 75 per cent.

The fund has the authority to waive the restrictions described in the foregoing paragraph, as well as the additional restrictions analyzed in the paragraphs which follow. Presumably it is to be especially generous in waiving restrictions in favor of "members with a record of avoiding large or continuous use of the Fund's resources." The pledge of gold, silver, securities, or other acceptable assets to protect the fund's interests may be required of a member on whose behalf the restrictions are waived.

Scarce Currencies.—If, in the course of its operations, the fund discovers that the demand for a particular currency by members is draining its supply to a dangerous degree, it may take several steps to remedy the situation. In the first place, it may issue a report, prepared with the participation of a representative of the member whose currency is becoming scarce, setting forth the cause of the scarcity and making recommendations to correct the situation. That seems to be innocuous enough. Second, the fund may borrow currency from the member whose currency is becoming scarce, or, with the consent of the member, it may borrow the currency from other sources within or outside the member's territories. The member, however, is under no obligation to make loans to the fund or to give its consent for fund borrowings of its currency from other sources. Third, the fund may purchase the currency of the member in exchange for gold. In this instance, the member is obligated to accept gold from the fund in exchange for its currency. Finally, the fund may notify its members formally that the particular currency has become scarce and proceed to ration its dwindling supply "with due regard to the relative needs of members, the general international economic situation, and any other pertinent considerations." A formal declaration by the fund serves as an authorization to the members to impose various kinds of exchange restrictions with respect to dealings in

the scarce currency. Such restrictions are not to be harsher than the situation warrants, and they are to be removed as quickly as conditions permit; moreover, a later declaration by the fund that the currency is no longer scarce revokes the authority of members to continue the exchange restrictions.

Limitations upon Capital Transfers.—As a general rule, members may buy currencies from the fund for use only in paying for imports of commodities and services, in providing short-term banking facilities, in paying interest and dividends upon securities held in foreign countries, in making payments of moderate amounts in the amortization of loans, and in furnishing moderate remittances for family living expenses. The rule means that the resources of the fund are not to be employed, in ordinary circumstances, for substantial transfers of capital between member countries. Although the agreement permits capital transactions of "reasonable amount" required in the ordinary course of trade, banking, or business and for the expansion of exports, it specifically prohibits the use of the resources of the fund by members to meet large or sustained outflows of capital. Indeed, the fund may declare a member ineligible to use its resources for any purpose if the member persists in using them to meet such capital outflows after having been requested to establish controls.

On the other hand, members which use the resources of the fund sparingly are given special rights if they desire to buy currency from the fund for capital transfers. In this regard, the agreement provides that a member may buy currencies from the fund for any purpose, including capital transfers, if the fund's holdings of its currency have been less than 75 per cent of its quota for a period of six months; but the special privilege may be exercised only until the fund's holdings of the buying country's currency reaches 75 per cent of its quota or until the fund's holdings of the currency to be sold are reduced to 75 per cent of the quota of the member whose currency it is. Suppose, for example, that Member A, having a quota of \$500,000,000, desires to buy the currency of Member B, whose quota is \$200,000,000; and that the fund's holdings of the currency of Member A amount to \$325,000,000, and of the currency of Member B, to \$180,000,000. Member A would be entitled to buy \$30,000,000 of the currency of Member B for capital transfers—the limit would be reached at that figure because the sale would reduce the fund's holdings of Member B's currency to 75 per cent of its quota. If, however, the fund held \$210,000,000 of Member B's currency, Member A could buy \$50,000,000 of that currency for capital transfers—here the limit would be reached at \$50,000,000 because the acquisition by the fund of Member A's currency would bring the fund's holdings to 75 per cent of Member A's quota.

Charges and Dividends.—The fund is authorized to impose three types of fees or charges in transactions with its members. In the first place, a service charge of .75 per cent of the parity price of a currency is assessed

upon the member which buys it in exchange for its own currency. The fund may increase the service charge but not beyond 1 per cent of the parity price. Second, the fund has the authority to assess reasonable handling charges in buying and selling gold. Third, the fund is required to levy a sliding scale of charges upon each member when its average daily holdings of the member's currency exceed the quota. Charges in this classification are progressive in respect to both the size of the fund's holdings in excess of the member's quota and the period of time during which the excess continues. Three months without charge are allowed for holdings which exceed a member's quota by not more than 25 per cent, and the lowest charge, .5 per cent per annum, is placed upon holdings of this size for the remaining nine months of the first year of excess holdings. No limit is placed on the height to which the rates may rise, but the agreement provides that when the rate on any portion of the fund's excess holdings reaches 4 per cent, the fund and the member shall discuss possible means by which the fund's holdings of the member's currency may be reduced. When the rate reaches 5 per cent, and no agreement has been reached with the member as to means to reduce the fund's holdings, the fund may impose any further charges it deems appropriate.

As a rule, the three varieties of charges are payable in gold; however, the agreement permits members whose monetary reserves are relatively small to pay a portion of the charges in their own currencies.

The income derived from the foregoing charges is used, as far as is necessary, to meet the operating expenses of the fund; whatever remains after the payment of expenses may be set aside as a reserve or may be distributed to the members as dividends, in such proportions as the Board of Governors decides. Dividends are payable to each country in its own currency.

Transitional Arrangements.—Although the Bretton Woods agreement is designed to make the free interchange of member currencies possible to an unlimited extent, provision is included for a "transitional period" during which members are privileged to continue in effect, and even to introduce, various kinds of exchange restrictions. The inclusion of provisions for the transitional period recognizes the inability of many countries, in view of the chaotic conditions of the postwar period, immediately to subject their currency systems to the interplay of all kinds of international economic forces. Upon becoming eligible to purchase currencies from the fund, a member may notify the fund that it will avail itself of the transitional arrangements, and its notification confers upon it the right to "maintain and adapt to changing circumstances . . . restrictions on payments and transfers for current international transactions." Within three years from the date on which the operations of the fund began, and each year thereafter, the fund is to publish a report to its members summarizing the restrictions which continue in force in accordance with the transitional arrangements. Five years from

the date on which the operations of the fund got under way, and each year thereafter, each member which retains restrictions upon current international payments is required to consult with the fund regarding means for their removal. The fund is authorized to take the initiative in suggesting to members that the time has arrived for the removal of some or all of the restrictions which they still retain; moreover, it may expel members which continue restrictions in force when valid reasons for their retention no longer obtain.

Obligations of Members.—In connection with the operations of the fund, it is well to summarize the principal obligations of members, many of which have already been mentioned or implied. Each member accepts the obligation to pay its original subscription in gold and its own currency, and to make additional payments if its quota is subsequently increased or the par value of its currency is reduced. It must establish a par value for its currency and take all necessary steps to maintain it. If it wants to buy foreign currencies with gold, it will give the fund preference in the transaction, that is, it will buy the foreign currencies from the fund provided that it can do so on terms as advantageous as those upon which it could buy elsewhere. Each member undertakes to buy back from the fund at the end of each fiscal year a certain portion of the fund's holdings of its currency—the amount to be repurchased is determined, with certain limitations, according to the amount by which the fund's holdings of the currency have increased and changes in the monetary reserves of the member have taken place during the year. The member, moreover, undertakes to buy back balances of its currency held by other members, provided that the members requesting the purchase represent that the balances were recently acquired upon current transactions or that the conversion is necessary for the making of payments upon current transactions; the member which buys back its currency may pay in gold or in the currencies of the members which request the purchase. Each member of the fund, furthermore, assumes the obligation to avoid all kinds of restrictions upon payments for current international transactions unless they are imposed as arrangements for the transitional period or in connection with currencies declared scarce by the fund; to avoid "discriminatory currency arrangements or multiple currency practices" unless authorized in the agreement or by the fund; and to make unenforceable within its territories all contracts involving the currencies of other members which are contrary to the legitimate exchange restrictions of those members.

Aside from direct transactions in gold and foreign currencies, each member places itself under obligation to supply the fund with adequate information respecting its monetary reserves, gold production, gold movements, international balance of payments, national income, foreign exchange rates, price indexes, and other similar matters. It undertakes to recognize the corporate powers of the fund and to permit the fund to exercise them

within its territories, to grant the fund immunity from judicial process, search, confiscation of property, and so on, to provide for the inviolability of the archives of the fund, to grant various kinds of diplomatic privileges to the personnel and communications of the fund, to exempt the fund's assets, income, and operations from taxation, and to avoid discrimination in taxing any obligations or securities issued by the fund. Finally, the member guarantees the fund against all losses which might result from the failure or default of the depository which the member designates within its territories for the use of the fund.

Powers of the Fund.—It is advantageous, also, to summarize the principal powers which the Bretton Woods agreement confers upon the fund. Probably the most sweeping power of the fund is its authority to limit any member's access to its resources when it "is of the opinion" that the member is using those resources in a manner contrary to the objectives of the agreement. The only apparent limitation upon this power is the requirement that the fund submit a report to the member accounting for its decision. Whether or not the member replies, the fund may continue to limit its access to the fund and may, indeed, declare it entirely ineligible to buy currencies from the fund. Elsewhere the fund is given specific authority to declare members ineligible and to expel them for unauthorized changes in the par value of their currencies, for use of the resources of the fund for unauthorized capital transfers, and for failure to remove, when so advised (ordered?) by the fund, exchange restrictions maintained in the transitional period.

Important also are the fund's powers to determine the quotas and terms of admission of nations which were not entitled to the privileges of original membership, as well as its authority to veto proposed changes in the par values of the currencies of members beyond the permitted 10 per cent limit. Also to be emphasized are the fund's powers to waive the specific limitations included in the agreement upon the capacity of members to use its resources, to levy charges at whatever level it decides when its excess holdings of a member's currency reach a volume and a time limit which make them automatically subject to a rate of 5 per cent per annum, and to ration certain currencies upon its declaration that they have become scarce. In connection with scarce currencies, the capacity of the fund to augment its supply by borrowing (with the permission of the members concerned) is especially noteworthy, for this is the sole authorization to borrow conferred upon the fund. Finally, authority is delegated to the fund to suspend for limited periods in the event of emergencies many of the more important provisions of the agreement.

MANAGEMENT

The management of the fund is vested in a Board of Governors, a group of executive directors, and a managing director and his staff. The

Board of Governors occupies a position resembling that of the stockholders of a business corporation; the executive directors resemble the board of directors of such a corporation; and the managing director is similar to a corporation's president.

Board of Governors.—Each member of the fund appoints a governor in whatever manner it chooses. He is given a five-year term, subject to reappointment, but the appointing member may remove him at any time. The member also appoints an alternate who is to serve in the absence of his principal. The board itself chooses one of its members as chairman. The agreement provides that the board shall have an annual meeting and other meetings as it shall decide or as called by the executive directors. The executive directors must call a meeting of the board when so requested by five members or by members which have 25 per cent of the total voting power. A majority of the governors holding at least two thirds of the total voting power of the fund constitutes a quorum. The governors do not receive salaries or other similar compensation from the fund, but the fund reimburses them for "reasonable" expenses incurred in attending meetings.

All powers of the fund are vested in the Board of Governors, and each governor is privileged to cast as many votes as are allotted to the member which he represents. In this regard, each member holds 250 votes plus one additional vote for each \$100,000 of its quota. The distribution of voting power among the principal members of the fund—on the basis of the quotas in effect in March, 1946—is indicated in Table 40. In marking his ballot upon any action, each governor must cast en bloc the votes to which he is entitled.

For most actions of the fund, decisions are carried by a majority of the votes cast, but more complete concurrence is required in matters of special importance—a four-fifths majority of the total voting power for changes in quotas, for increases in the number of executive directors, and for extensions of periods of suspension in the event of emergencies; a three-fourths majority of the total voting power for increases in the general scale of charges upon the fund's excess holdings of member currencies; a majority of the total voting power and the specific approval of each member having 10 per cent or more of the total of the quotas for changes in par value; and a majority of the governors having a majority of the total voting power for the expulsion of members.

The Board of Governors may delegate to the executive directors all its powers except the following: to admit new members and to determine the terms of their admission, to approve a revision of quotas, to approve uniform changes in the par value of members' currencies, to make arrangements for cooperation with other international organizations (with minor exceptions), to determine the distribution of the net income of the fund, to require members to withdraw, to decide to liquidate the fund, and to pass upon

appeals from the executive directors upon matters concerning the interpretation of the agreement.

Executive Directors.—There must be not less than twelve executive directors, of whom five are appointed individually by the members having the largest quotas, two are elected by the American republics other than the United States, and five are elected by all other members. Executive directors may or may not be members of the Board of Governors, depending upon the decisions of the countries appointing or electing them. Their compensation is subject to determination by the Board of Governors.

The executive directors are to "function in continuous session" in supervising the general operations of the fund; they are to exercise the powers and fulfill the tasks which are delegated to them by the Board of Governors. In making decisions, each director is entitled to cast the number of votes held by the member appointing him or the members whose votes counted in his election, and he is required to cast all his votes as a unit. A majority of the directors holding not less than half of the votes constitutes a quorum; however, each director appoints an alternate who may attend meetings and vote in his absence.

Managing Director.—The principal executive officer of the fund is the managing director, who is appointed by the executive directors and who is removable at any time at their discretion. He is to conduct "the ordinary business of the Fund" and is to supervise the work of the operating staff. He may not be a governor or an executive director; nevertheless, he serves as chairman of the executive directors and has a casting vote in the event of an equal division, and he may participate in all meetings of the Board of Governors but without any right to vote.

In appointing his staff, the managing director is subject to the general control of the executive directors. Although he is to maintain high standards of efficiency and of technical competence, he is to recruit personnel on as wide a geographical basis as possible. The managing director and the staff "shall owe their duty entirely to the Fund and to no other authority"; in this regard, the members are under obligation not to attempt to influence the managing director and his staff in the discharge of their duties.

INTERPRETATION AND CRITICISM

Gold Again.—Probably the most significant aspect of the establishment of the International Monetary Fund is that it has meant the restoration of gold as an international medium of exchange and standard of value. The continuous use of gold in these capacities appears to be assured by the obligation of each member to establish and maintain a par value of its currency in terms of gold. Thus it is possible, as of old, to state the value of one currency in terms of another by an exact mathematical ratio, and to carry on commercial transactions between the two currencies at rates closely approximating the ratio. The possibility that such a ratio may be changed

by a member acting unilaterally within the 10 per cent limit or, with the consent of the fund, beyond that limit—this possibility should be regarded as a means of strengthening the position of gold rather than as a source of weakness, for a realization that limited changes are permissible should promote greater confidence in exchange transactions than can exist when each nation reserves an unlimited right to do as it pleases with its own currency. Nevertheless, the agreement is not without defects in its provisions respecting the gold or par values of member currencies. One weakness is found in its failure to place restrictions upon the *frequency* with which each member may change the par value of its currency within the 10 per cent limit. Another possible weakness is the silence of the agreement regarding direct adjustments between members when par values are changed—adjustments to compensate for loss or gain upon holdings of the currency whose par value is being altered.

The Bretton Woods agreement, on the other hand, leaves to each member the determination of the functions of gold in domestic transactions. It calls for neither gold coinage nor the internal redeemability of credit money in gold bullion or in anything else. Each member is presumably in a position to adopt whatever domestic monetary policies it chooses, whether adherence to the old-fashioned "rules of the game" of the gold standard or the maintenance of a program of price-level stabilization, and it apparently has assurances that it will not suffer prolonged ill effects because its policies differ from those which are being adopted in other countries. In other words, the Bretton Woods plan appears to promise a reasonable insulation of the domestic economy of each member from difficulties and disturbances originating elsewhere, for if the domestic economy gets "out of line," adjustment can be had by means of well-considered changes in the par value of the member's currency, rather than by the older procedure of suspending the gold standard and inaugurating other varieties of currency warfare.

The Bretton Woods agreement does not eliminate entirely the "rules of the game" of the "old" gold standard, for it remains necessary for members to make various kinds of adjustments when fundamental disequilibria develop in their balances of payments, as is evidenced when the fund's holdings of particular currencies become excessive or scarce. Nevertheless, no "automatic" processes—such as the expansion or contraction of the outstanding quantity of money in a member's territories and changes in its price level or interest rates—are called for. Instead, the fund and the members concerned are to consult with each other as to the best method of procedure, and the remedies agreed upon, it is to be presumed, will be introduced in such manner that severe disturbances may be avoided.

An important feature of the Bretton Woods agreement is that it provides a sizable supplement to the world's stock of monetary gold. In times past, a country included in its monetary gold reserves chiefly the gold which

it physically held; it might add its deposits and short-term holdings in foreign gold-standard countries, but it could never be quite sure of their convertibility. Under the new dispensation, however, a member of the fund may reasonably include in its gold reserves, not only gold physically held and short-term balances standing to its credit in other member countries, but also an amount equal to the volume of foreign currencies it is eligible to buy from the fund in exchange for its own currency. Moreover, the members of the fund have the capacity to increase without limit the monetary value of the world's physical stock of gold through successive uniform reductions in the par values of all member currencies.

"Borrowing" from the Fund.—The purchase of a foreign currency from the fund by a member in exchange for its own currency really amounts to borrowing from the member whose currency is obtained. But the lending member has little to say regarding the terms and conditions of the loan, for it has surrendered to the fund the right to determine these. Moreover, the lending member does not earn interest upon the loan, except to the extent that it shares in the income of the fund distributed as dividends. The borrowing (or buying) member obligates itself to pay various charges to the fund and not to the member whose currency is supplied. These aspects of the fund's operations have been criticized on the ground that they represent a departure from the traditional procedure by which the lender reserves the right to determine the amount, maturity, and other features of a loan, as well as to set down various conditions to govern the borrower's use of the funds.

Nevertheless, the loan, it may be said, is repayable to the lending country upon demand, for it, too, has the privilege of buying currencies from the fund. Thus if France, say, were to buy \$100,000,000 from the fund, the equivalent amount in francs which it would pay into the fund would represent a claim of all other member nations upon goods to be supplied by it. Accordingly, the United States, if it wanted to have its loan to France repaid, could buy an amount of francs from the fund equivalent to \$100,000,000 and use the francs to buy goods in France. The principal problem which arises here concerns those countries whose currencies tend toward scarcity, for they may, in effect, be granting to foreign countries large loans over which they have little direct control, while at the same time they may have little need, because of the relatively small volume of their imports, to buy currencies from the fund.

Cooperation.—In the final analysis, the success or failure of the International Monetary Fund will depend not so much upon the specific articles of the Bretton Woods agreement as upon the attitude of the member nations. If they are willing to cooperate fully, provisions which prove to be unworkable may easily be eliminated, others which are weak may be strengthened, and new matters may be introduced as changing circumstances warrant. If the spirit of cooperation is absent, however, the statutes

of no international organization, no matter how soundly they may have been conceived, can have much meaning. Thus members of the fund are expected to remove the exchange restrictions of the transitional period as quickly as possible, but if they do not want to do so—if they are not willing to cooperate—the whole machinery of the fund will become rather useless. The fund may expel members which do not fulfill their obligations, but wholesale expulsions would not cure the evil of noncooperation; certainly, the expulsion of one or more of the "Big Three," the "Big Four," the "Big Five," or however many "big" powers there may be, would seriously weaken the whole structure of the fund and start it on the road to collapse.

In the matter of cooperation, the role of the United States is of pre-eminent importance. As the only major power which suffered no devastation during the period of the war, and as a nation whose productive capacity is far above that of any other country, we are in a position to decide whether or not organizations such as the fund are to make a profound contribution toward international comity. Much depends upon the availability of dollars with which foreign nations may buy the American goods that they sorely need—how are they to get the dollars?

The International Bank for Reconstruction and Development

While the objectives of the International Monetary Fund are concerned with the short-run stabilization of exchange rates and equilibrium in balances of payments, the purposes of the International Bank for Reconstruction and Development center around the extension of long-term international loans to countries in need of capital; and while the resources of the fund are specifically declared to be unavailable for relief, reconstruction, and the payment of war debts, one of the principal objectives of the bank is to provide the means of rehabilitation to war-torn areas.

The objectives of the bank are broadly stated: to assist in the reconstruction and development of the territories of members by facilitating the investment of capital for productive purposes, to promote and supplement private foreign investment, to promote the balanced growth of international trade through the development of the productive resources of members, to give preference to the more useful and urgent projects, and to assist in bringing about a smooth transition from a wartime to a peacetime economy. Here again, however, a reading of the stated objectives of the bank may give one a false conception of its functions, for it must be remembered that the bank has been established to support the customary channels of international investment rather than to replace them. In other words, privately arranged international investment is to be encouraged in every possible way, and investment bankers and others concerned with international capital movements are called upon to function in their normal capacities. In ordinary circumstances, therefore, the bank provides direct

advances, participations, and guaranties only when private suppliers of capital, in consideration of their usual standards, decide to reject proposals and projects which the bank regards as both sound and worthy.

CAPITAL OF THE BANK

The articles of agreement drawn up at Bretton Woods placed the authorized capital stock of the bank at \$10,000,000,000 in terms of the United States dollar of 13.714 grains of fine gold. Of the total authorized stock, 76,700 shares—each of \$100,000 par value—had been subscribed by member countries by the end of March, 1946. The subscriptions of the leading members are listed in Table 41. The stock subscribed by the original members

TABLE 41
SUBSCRIPTIONS AND VOTING POWER IN THE INTERNATIONAL BANK IN
MARCH, 1946

Country	Subscriptions		Voting power	
	Amount (in millions of dollars)	Per cent of total	Number of votes	Per cent of total
United States.....	\$3,175	41.4	32,000	37.1
United Kingdom.....	1,300	17.0	13,250	15.4
China.....	600	7.8	6,250	7.3
France.....	450	5.9	4,750	5.5
India.....	400	5.2	4,250	4.9
Canada.....	325	4.2	3,500	4.1
Netherlands.....	275	3.6	3,000	3.5
Belgium.....	225	2.9	2,500	2.9
Latin-American members.....	288	3.8	6,880	8.0
All other members.....	632	8.2	9,820	11.4
Totals.....	\$7,670	100.0	86,200	100.0

Source: *Federal Reserve Bulletin*, April, 1946, pp. 367, 371.

was made payable at par; other issues are also to be sold at par unless the bank, by a majority of the total voting power, decides otherwise. Each original member was required to pay in gold or United States dollars, within sixty days of the date upon which the bank began operations, an amount equal to 2 per cent of its subscription. An additional 8 per cent of subscriptions, payable in the currencies of the individual members, was made callable by the bank within one year of the date upon which it began operations, and a further 10 per cent, also payable in the currency of each member, remains subject to call by the bank at any time that the funds are needed for its operations. The remaining 80 per cent of the subscriptions is callable only when the funds are needed by the bank to meet its obligations to parties from whom it has borrowed and to private investors whose

loans it has guaranteed. Thus payments upon subscriptions within the 20 per cent bracket go into what may be called the bank's "loan fund," while payments within the 80 per cent bracket, if called, go into its "guaranty fund." Payments by member countries upon calls for the guaranty fund are to be made in gold, in United States dollars, or in the currency with which the bank must discharge its obligations.

The agreement establishing the bank includes provisions—similar to those of the fund—which require additional payments by a member to the bank if the par value of its currency is reduced or if the currency has, in the opinion of the bank, depreciated to a significant extent within the member's territories, and payments by the bank to the member if the par value of its currency is increased. Other provisions relating to the capital stock of the bank forbid members to pledge or encumber their holdings in any way, and stipulate that members may sell the stock only to the bank, as in the event of withdrawal.

LOANS AND GUARANTIES

General Regulations.—The bank may grant loans in full out of its own resources or out of borrowed funds, it may participate with other lenders in granting loans, and it may guarantee loans granted by "private investors through the usual investment channels." Eligible borrowers include members, their political subdivisions, and business, industrial, and agricultural enterprises which operate in the territories of members. In arranging loans, participations, and guaranties, the bank must give "equitable consideration to projects for development and projects for reconstruction alike" and it must "pay special regard to lightening the financial burden and expediting the completion" of reconstruction in the war-devastated areas of members. Its total outstanding loans and participations are limited to the amount of its *paid-in* capital, its surplus, and its reserves, plus such amounts as it may borrow; and its total outstanding loans, participations, and guaranties are limited to the amount of its unimpaired *subscribed* capital, surplus, and reserves. The bank must take steps to insure that the proceeds of loans are actually used for the purposes for which they were granted, but it must not require that they be spent in the territories of any particular member or members.

The bank is given full discretion to fix interest rates, maturities, and the amount and frequency of payments to amortize its loans; however, it is required during the first ten years of its operations to charge a commission (aside from interest charges) ranging from 1 to 1.5 per cent upon the outstanding balances of loans granted out of borrowed funds and upon the outstanding balances of guaranteed loans. After ten years, the range of commission charges may be raised or lowered as conditions warrant. Income derived from the commission charges is payable into a special reserve to meet losses.

Loans, participations, and guaranties may be provided by the bank only if it is satisfied that the prospective borrowers could not obtain the necessary funds upon reasonable terms without its assistance. The general rule is that the bank may assist only in the financing of specific projects which have been recommended in writing by competent committees. Moreover, the bank must be guaranteed against the loss of principal, interest, and charges when members themselves are not the borrowers. Each guarantor may be the member in whose territories a project is financed, its central bank, or another of its institutions which is acceptable to the bank. Thus if the bank lends funds to a British industrial firm, the British government, the Bank of England, or some "comparable" agency must guarantee the loan; and if the bank guarantees a loan extended by American capitalists to the British firm, a similar British guaranty must be forthcoming. Hence, among other arrangements, guaranties upon guaranties are provided for. Finally, the bank must "act prudently in the interests both of the particular member in whose territories the project is located and of the members as a whole."

As a general rule, the proceeds of each of the bank's direct loans are made available in the foreign currencies which are needed for the completion of the project for which the loan is granted. Thus for the construction of an industrial plant in a Latin-American country, the borrower might plan to import heavy machinery from the United States, other kinds of equipment from Great Britain, and still other materials from France; accordingly, the bank would make available the requisite proportions of dollars, pounds, and francs. The bank would open an account to the credit of the borrower in these currencies, and the borrower would be permitted to draw against the account only as expenditures were to be made in meeting the costs of the project. Domestic currency needed in connection with a project is normally to be raised at home; however, the bank may advance an appropriate amount of the borrower's domestic currency if he cannot obtain it otherwise on reasonable terms.

Loans from the Bank's Funds.—The gold and specific currencies paid into the bank by members upon the 20 per cent bracket of their subscriptions, together with other gold and currencies owned by the bank (accumulated, for example, from earnings), are available for loans. The gold paid in upon subscriptions and the gold and currency derived from sources other than subscriptions may be used freely by the bank in its loan operations; but the currency paid in upon subscriptions may be loaned or exchanged for other currencies only with the consent of the respective subscribing members. Thus if the bank proposes to lend the dollars subscribed and paid in by the United States, we have the right to approve or reject the projects which the bank's prospective loan is to finance, and if we consent to the loan, we can, in effect, require that the proceeds be spent within the borders of the United States by stipulating that the dollars loaned may not be converted

into any other currency. Moreover, interest and principal obligations of borrowers upon loans granted out of a particular subscribed currency must be made payable in the same currency, unless the member whose currency it is consents to some other arrangement. The control of each member over the currency paid in upon its subscription within the 20 per cent bracket continues indefinitely, for each act of relending these subscribed funds requires the member's approval.

In one situation only does the member lose control of the currency which it has paid into the bank's loan fund. That happens if the bank exhausts the 80 per cent subscription bracket in meeting losses and in repaying its own obligations—in such circumstances, the bank may use any currency it possesses in paying off its remaining obligations.

Loans out of Borrowed Funds.—The bank may also borrow funds to relend. To borrow in the market of any member, however, the bank must have the consent of the member; and if the bank borrows in the market of one member and grants its loan in the currency of a second member, the consent of the second member is also required. Thus if the bank proposes to borrow dollars in the United States, to convert the dollars into French francs, and to grant a loan in francs, the consent of France as well as of the United States is required. After the consents have been given, however, the bank is free to use the proceeds of its borrowings in whatever manner it chooses; hence, generally speaking, the bank's freedom of action in granting loans out of borrowed funds is much greater than in granting loans out of subscribed currency. The borrower, moreover, is free to spend the proceeds of such a loan wherever he chooses—he cannot be restricted, as in the case of loans out of subscribed currency, to spending the proceeds within the country where the funds were provided.

Guaranties.—In guaranteeing loans granted "by private investors through the usual investment channels," the bank must also have the approval of the members in whose markets the funds are raised, as well as of the members in whose currencies the loans are granted. Thus if a group of American investors were to ask for a guaranty upon a loan in sterling to be granted to a Brazilian firm (the sterling to be acquired by the conversion of dollars), the bank, before giving its guaranty, would have to obtain the consent of both the United States and the United Kingdom. Nevertheless, the consenting members cannot control the spending of the proceeds of the loans or their conversion into other currencies.

MANAGEMENT

The provisions for the management of the bank are quite similar to those which concern the management of the fund. Each member country is allotted 250 votes plus one vote for each share of stock held. Table 41 indicates the number of votes and the proportion of total voting power held by the leading nations which had become members by March, 1946. Most of the

decisions of the bank are made on the basis of a majority of the votes cast, but larger pluralities are required for matters of greatest importance.

Like the fund, the bank has a Board of Governors, a group of executive directors, and a chief executive officer (in this instance, called "president" rather than "managing director"). The appointment of members of the Board of Governors and of alternates, their term of office, their powers, their authority to delegate powers to the executive directors, the frequency of their meetings, the number of executive directors, the method of voting for elective directors, their term of office, their authority, the functions of the president and his staff—all these provisions closely parallel those of the fund. One noteworthy difference between the management provisions of the fund and those of the bank is that no member or group of members of the latter is given a special right to elect executive directors—five executive directors are appointed by the five members having the largest number of shares, and the remaining seven are elected by all other members. Another difference is that the bank has an advisory council of at least seven members, chosen by the Board of Governors and representative of banking, commercial, industrial, labor, and agricultural interests, to advise upon matters of general policy.

INTERPRETATION AND CRITICISM

The proposals for the establishment of the International Bank for Reconstruction and Development met with only slight opposition; although many influential persons and institutions, both in the United States and elsewhere, strongly opposed the erection of the International Monetary Fund, few argued against the creation of the bank. Indeed, the proposals for the bank were accepted so generously that suggestions were put forth—as by the spokesmen of the American Bankers Association—that plans for the fund be discarded and that the currency stabilization functions assigned to it at Bretton Woods be transferred to the bank. Accounting for the lack of opposition to the bank has been the universal recognition of the need of a huge volume of international investment for postwar prosperity and of the probable hesitancy of private investors, in consideration of past losses, to hazard their funds in foreign lending.

Probably the most significant aspect of the bank's functions is the provision for the guaranty of private international loans. This feature represents an extension to the international sphere of a procedure which has worked so successfully in recent years in American domestic finance, as in the insurance of mortgage loans by the Federal Housing Administration and in the guaranty through the agency of the federal reserve banks of "V-loans" for the production of war materials. The arrangement of guaranties is predicated upon the belief that ample capital is available for investment but that its owners must have special safeguards before they are willing to part with it. It is altogether likely, therefore, that the principal

work of the bank will be concerned with the provision of guaranties rather than with the lending of its own or borrowed funds.

Although the bank has been welcomed cordially, this does not mean that the agreement concluded at Bretton Woods is accepted as flawless. On the contrary, it appears that the limitations placed upon the bank's operations may prove to be so restrictive as greatly to curtail its usefulness. In this regard, the bank may be made virtually powerless if the members observe an illiberal policy with respect to the extension of international loans, for each member, as we have seen, reserves the right to approve or reject proposed loans to be granted out of the currency it has subscribed and out of funds borrowed in its market, as well as to pass upon proposed guaranties arranged upon loans to be granted out of funds raised in its market. Perhaps, in addition, the standards which the bank must observe in granting loans and guaranties are too strict: it may well be that applicants who can satisfy the bank's standards could also, because they are good credit risks, obtain funds from private sources without the bank's aid, and that applicants who cannot meet the credit requirements of private investors could not also measure up to the standards of the bank.

The Export-Import Bank of Washington

Although the Export-Import Bank of Washington was in operation for several years before the outbreak of the Second World War, it came to occupy a position of prominence only after the occurrence of that event. Through the extension of loans to many of the countries of Latin America during the war years, it encouraged the development of resources so that we might have new sources of war materials; and following the cessation of hostilities, it served as the agency through which the United States granted loans to many nations for reconstruction and rehabilitation, pending the launching of the full-scale operations of the International Bank for Reconstruction and Development.

MANAGEMENT AND CAPITAL

The Export-Import Bank was chartered as a banking corporation under the laws of the District of Columbia on February 12, 1934, in accordance with an executive order of President Roosevelt; however, its corporate setup was materially changed by an act of Congress adopted on July 31, 1945. At the present time, the bank is managed by a board of directors of five members, of whom four are chosen by the President with the advice and consent of the Senate, and the fifth is the Secretary of State *ex officio*.² One of the appointive members is designated by the President as chairman. A separate advisory board is also provided for, including the chairman of

²Or an officer of the Department of State chosen by the Secretary, provided that the officer is one appointed with the advice and consent of the Senate.

the Export-Import Bank, the Secretary of State, the Secretary of the Treasury, the Secretary of Commerce, and the chairman of the Board of Governors of the Federal Reserve System.

The present law authorizes the Treasury, on behalf of the United States, to subscribe to the capital stock of the bank in the amount of \$1,000,000,000;³ and it permits the bank to issue, and directs the Treasury to buy, notes, debentures, bonds, and other obligations in an amount not exceeding \$2,500,000,000. The entire proceeds of the sales of the bank's capital stock and obligations are available for loans and guaranties, for the law simply provides that the total outstanding loans and guaranties at any time shall not exceed three and one half times the bank's authorized capital stock.

OPERATIONS

The original function of the Export-Import Bank of Washington was to assist in financing trade with Russia, but the scope of its operations was expanded in 1936, when it absorbed a second export-import bank which had been engaged in expediting trade with Cuba and other countries. Before 1940, the bank was primarily concerned with the development of foreign markets for American goods, particularly agricultural commodities and machinery and other durable goods, and its principal activities involved the extension of financial assistance to exporters. To facilitate its work of this character, it was empowered to discount and purchase notes, bankers' acceptances, and other bills of exchange, to make loans, to issue letters of credit and to accept drafts, and to buy and sell government securities, foreign currencies, coin, and bullion. In that period, however, its total outstanding commitments at any time were limited to \$100,000,000.

Legislation adopted on September 26, 1940, made the Export-Import Bank an important instrument for the furtherance of the economic foreign policy of the United States; it greatly expanded the capacity of the bank to grant loans and guaranties "to assist in the development of the resources, the stabilization of the economies, and the orderly marketing of the products" of the countries of the Western Hemisphere. Thus empowered, the bank made numerous loans in Latin America for the building of roads, the development of railroads, the building of factories, the production of rubber, the construction of water systems and sanitation works, and numerous other projects of a similar character. Although it was recognized that such projects would be of immediate benefit to the countries in which they were undertaken, it was anticipated that they would also eventually benefit the United States in providing new sources of materials for both war and peace and in promoting "hemisphere solidarity."

³ Before the adoption of the legislation of July 31, 1945, the Treasury held 10,000 shares of the bank's common stock of \$100 par value per share, and the Reconstruction Finance Corporation held \$174,000,000 par value of its preferred stock. The legislation of 1945 provided for the retirement of the preferred stock at par.

Emphasis upon the interests of the countries of the Western Hemisphere was removed by the act of July 31, 1945; it authorized the Export-Import Bank to use its resources—now expanded to \$3,500,000,000—to promote trade between the United States, its territories, and insular possessions “and any foreign country or the agencies or nationals thereof.” The objective of the legislation was to contribute to the full employment of our enormous productive capacity by the expansion of foreign markets for our goods—goods sorely needed by war-torn countries for current consumption and for the rebuilding of their capital equipment. Thus the bank, it may be said, was authorized to provide purchasing power to foreign countries to enable them to buy our goods in the “transition period” pending the opening of the International Bank for Reconstruction and Development. Nevertheless, it was not authorized to function as an international relief agency, for Congress directed it to grant loans, as far as possible, only for specific projects and only upon reasonable assurance of repayment. The intent of Congress that the bank should function as a business agency, and not as a philanthropic one, was also indicated in its instructions to the bank to supplement and encourage, rather than to compete with, private capital.

Part VIII

MISCELLANEOUS BANKING INSTITUTIONS

Banking Institutions of the Federal Government

Banking Institutions for the Consumer

Banking Institutions for the Saver

Banking Institutions in the Capital Market

Banking Institutions for the Farmer

Banking Institutions for the Builder

Chapter 34

BANKING INSTITUTIONS OF THE FEDERAL GOVERNMENT

Origin and Characteristics

Not only does the federal government supervise the operations of banking institutions through the enactment of legislation, through the rules and regulations of administrative bodies such as the Board of Governors of the Federal Reserve System, the Comptroller of the Currency, and the Federal Deposit Insurance Corporation, and through the examinations undertaken by the same agencies, but it also directly engages in many phases of banking. Its specialized banking corporations and credit agencies are found in almost all fields of finance, and in several they hold positions of dominance. That the most significant development in American finance in the past fifteen years has been the multiplication of federal banking facilities is a statement few will question.

DEVELOPMENT OF FEDERAL BANKING

The career of the federal government as banker extraordinary began with the establishment of the Postal Savings System in 1910, but, since it had its counterpart in many similar systems in Europe, this early financial enterprise was not generally regarded as the beginning of a revolution in banking. The government next turned its attention to the financial needs of the farming population of the country and launched the Federal Land Bank System under legislation adopted in 1916, and the Federal Intermediate Credit Bank System under legislation passed in 1923.

It was only with the coming of the great depression after 1929 that the banking operations of the federal government began to assume massive proportions; and when the financial problems produced by the depression seemed well on the way toward solution, the launching of the national defense program and the waging of war occasioned a further vast expansion in federal banking activities. The two periods differed, however, in so far as emphasis in the depression years was placed upon the establishment of numerous new institutions to serve almost every conceivable financial re-

quirement of the American people, and in the war years upon the expansion of functions of existing institutions.

The dates of establishment, the names, and the principal original functions of the recently created federal banking agencies may be summarized as follows:

1932

Reconstruction Finance Corporation—to rescue and resuscitate almost all kinds of privately owned financial institutions by means of loans and the purchase of securities.

Federal Home Loan Bank System—to provide facilities by which privately owned home-mortgage institutions might borrow funds to extend their operations.

1933

Home Owners' Loan Corporation—to assist distressed home owners to refinance defaulted or about-to-be-defaulted mortgages on more favorable terms.

Federal Farm Mortgage Corporation—to perform a similar service for the owners of mortgaged farms.

Banks for cooperatives—to provide a source of credit to enable farmers' cooperative associations to obtain physical facilities and working capital.

Production credit corporations—to assist farmers to establish associations through which they might obtain short- and intermediate-term credit.

Commodity Credit Corporation—to assist in the orderly production and marketing of farm crops both by making loans upon them and by buying and selling them.

Federal Deposit Insurance Corporation—the functions of this agency were discussed in detail in Chapter 11.

1934

Federal Housing Administration—to provide insurance upon real-estate loans to encourage privately owned financial institutions to lend liberally for home construction and modernization.

Federal Savings and Loan Insurance Corporation—to encourage investment in the shares of savings and loan associations through the insurance of shareholders' accounts individually to \$5,000.

Export-Import Bank of Washington—to make loans to foreign interests to enable them to purchase American goods and to produce goods desired for importation into the United States.

1935

Electric Home and Farm Authority—to make loans to farmers and others for the acquisition of gas and electric household appliances and farm equipment.

Rural Electrification Administration—to make loans for the building of rural electric systems, for the extension of power lines into rural districts, and for the wiring of farm premises.

RFC Mortgage Company—to make loans for the acquisition or construction of urban income-producing property and to purchase mortgages upon such property held by other financial institutions.

1937

United States Housing Authority—to assist cities and other political subdivisions to undertake low-cost, low-rent housing projects with the objective of eliminating slums.

Disaster Loan Corporation—to make loans for rehabilitation following floods and other catastrophes.

1938

Federal National Mortgage Association—to make loans for the construction of housing projects and to provide funds to other mortgage-financing institutions by purchasing approved mortgages from them.

1940-1943

War subsidiaries of the RFC—although several of these agencies were banking institutions to the extent that they had substantial lending powers, their principal functions were of a merchandising character—the accumulation of facilities and stocks of materials for national defense and war purposes.

1942

Smaller War Plants Corporation—to grant loans to the operators of small plants to enable them to acquire facilities and materials for war production, and to assist such operators in other ways to obtain reasonable participation in war contracts.

The foregoing list does not exhaust the roster of federal lending agencies which have been established since 1932, for others, such as the Maritime Commission, the Tennessee Valley Authority, and the Farmers Home Administration (which succeeded the Farm Security Administration in November, 1946), have been authorized to extend loans for various purposes. In the period since 1932, moreover, certain of the older federal agencies have been given new powers which have had or which continue to have important bearings upon banking developments; in this category we must include the authority of the Army, the Navy, the Maritime Commission, and the Veterans Administration to guarantee various kinds of loans extended by privately owned banking institutions. On the other hand, several of the agencies included in the list—the production credit corporations, the

Federal Housing Administration, the Federal Deposit Insurance Corporation, and the Federal Savings and Loan Insurance Corporation—are not banking institutions in the full sense of the word, but because their operations are so closely related to banking, it is not illogical to include them.

The financial significance of the federal banking agencies is indicated by the volume of their outstanding loans, recent data for which, as reported by the Treasury Department, are presented in Table 42.

TABLE 42
OUTSTANDING LOANS OF FEDERAL BANKING AGENCIES,
JUNE 30, 1946^a
(In millions of dollars)

Federal land banks	\$ 987
Reconstruction Finance Corporation and affiliates ^b	799
Home Owners' Loan Corporation	722
Export-Import Bank	700
Rural Electrification Administration	453
Federal intermediate credit banks	332
Farm Security Administration ^c	328
Federal Public Housing Authority	280
Federal home loan banks	203
Banks for cooperatives	162
Federal Farm Mortgage Corporation	156
Commodity Credit Corporation	48
Others	212
Total	\$5,381

^a After deducting reserves for losses and excluding interagency items.

^b May 31, 1946.

^c Absorbed by the Farmers Home Administration on November 1, 1946.

Source: *Federal Reserve Bulletin*, October, 1946, p. 1174.

PERMANENCE OF THE FEDERAL AGENCIES

Only a few of the federal banking agencies which have been established were originally designed to have a permanent place in the American banking system. This classification includes the Postal Savings System, the Federal Land Bank System, the Federal Intermediate Credit System, the banks for cooperatives, the production credit corporations, the federal home loan banks, the Federal Deposit Insurance Corporation, and the Federal Savings and Loan Insurance Corporation. The Federal Public Housing Authority,¹ though not planned as a permanent institution, is likely to have a long life for the reason that it may grant loans running for as long as sixty years; and the Federal Housing Administration, though it has several times exhausted its power to insure mortgage loans, is likely to be retained permanently in view of the great popularity of its program.

Most of the other agencies were established as temporary institutions to function only so long as their services might be needed to meet specific emergencies. The lending functions of the Home Owners' Loan Corporation, for example, have already expired, and the Electric Home and Farm

¹ This agency absorbed the United States Housing Authority in 1942.

Authority has already been dissolved. On the other hand, emergencies often have the pernicious habit of continuing for indefinite periods and of finding other emergencies to succeed themselves. Hence agencies originally endowed with a life of only a few years may be periodically rejuvenated and thus come to be clothed with the features of permanency. The Reconstruction Finance Corporation is an outstanding example of a short-term agency which tenaciously clings to life.

SOCIALIZATION OF BANKING

The continual extension of the banking activities of the federal government is looked upon with great fear in some quarters as presaging the complete socialization of banking in the United States. The severe critics of governmental operation in the banking field regard the competition offered by federal agencies as a means deliberately employed to eliminate many privately owned financial institutions; milder critics, on the other hand, believe that government competition, by reducing the profits of private institutions, will, however inadvertently, make their continued operation less attractive. And proponents and opponents of federal banking, alike, realize that the government *is able* to destroy private enterprise in the banking field, since it may use public funds to grant loans at negligible rates of interest and without regard to credit risks—a policy with which no private institution could compete.

Many features of federal banking, on the other hand, indicate that socialization is far from the minds of the members of Congress who establish new federal agencies, and of the administration which manages them. For one thing, many of the federal banks offer no competition to the private institutions which were in operation before their establishment. Thus as the federal home loan banks make no direct loans to home owners, they in no way obstruct the customary operations of private institutions which are engaged in negotiating mortgage loans upon residential property. And such agencies as the Rural Electrification Administration and the Export-Import Bank provide funds for purposes which would ordinarily be unattractive to privately owned banking institutions.

Again, one may point out that many of the federal banking agencies were designed, not to destroy the private banking system, but to save and rehabilitate it when it was in danger of utter collapse. Assistance to privately owned institutions has notably featured the operations of the Reconstruction Finance Corporation, whose loans and purchases of stock saved thousands of them from disaster. Similarly, the refinancing activities of the Home Owners' Loan Corporation and of the Federal Farm Mortgage Corporation made possible the "unfreezing" of millions of dollars of assets of privately owned financial organizations. The operations of such quasi-banking agencies as the Federal Deposit Insurance Corporation, the Federal Savings and Loan Insurance Corporation, and the Federal Housing

Administration obviously strengthen the private banking system by safeguarding their deposit accounts, their share accounts, and their mortgage loans, respectively.

Even where the federal agencies do offer severe competition to privately owned banks, as is often true in the field of farm finance, the plan of the government has been to enlarge the private facilities rather than to supplant those already available. The plan according to which the federal land banks and the banks for cooperatives were established envisaged their eventual ownership by associations of borrowing farmers; and the production credit corporations were designed merely to assist farmers to form their own associations through which to borrow funds for short- and intermediate-term purposes. Similarly, in the field of real-estate finance, the federal home loan banks were established according to a plan which called for their eventual ownership by private member institutions.

Finally, the fact that many of the federal banking agencies are of a temporary or emergency character argues against the idea that socialization is a goal of federal activity. Though the life of these agencies may be prolonged from time to time, each extension faces considerable opposition in Congress—and a sizable minority, which may at any time become the majority, is usually found to advocate immediate abolition.

FUNCTIONS OF THE FEDERAL BANKING AGENCIES

An examination of the functions of the more important of the federal banking agencies included in the foregoing list—with one significant exception—comes logically within the purview of other chapters of this text; hence we shall say nothing further of them at this time. The one exception—the Reconstruction Finance Corporation—has operated in so many fields of finance that it cannot easily be fitted in elsewhere; accordingly, we shall find it convenient to survey its structure and activities at once.

The Reconstruction Finance Corporation

The Reconstruction Finance Corporation has been and is a most extraordinary financial institution. Its operations at times have been so enormous as to make it the world's greatest bank, and it has probably been concerned with more fields of economic activity than any other financial agency. It has come to the rescue of industrial empires, yet the financial problems of obscure business enterprises have not been too unimportant to command its attention. It is the agency which was called upon to parcel out to the states the early relief grants of the federal government. It has owned stocks and other securities in thousands of banks, insurance companies, and other financial concerns, and a controlling interest in not a few of them. It has made loans to railroads, both solvent and in receivership, to mining companies, to drainage districts, to school boards, to other political

subdivisions, and to an almost inexhaustible list of other borrowers. And, most notably, it was able, through the machinery of its existing far-flung facilities and of other facilities newly created, to make an outstanding con-

TABLE 43
ASSETS AND LIABILITIES OF THE RFC, DECEMBER 31, 1945^a
(In millions of dollars)

<i>Assets</i>	
Cash.....	61.2
Loans receivable from government agencies.....	990.6
Loans receivable from others:	
To aid agriculture.....	.3
To aid home owners.....	11.5
To aid industry.....	353.8
To aid states, territories, etc.....	118.8
To aid financial institutions.....	60.1
Foreign.....	271.2
Other loans.....	174.3
Accounts and other receivables, less reserves.....	709.0
Commodities, supplies, and materials.....	965.2
Investments:	
Public debt obligations of the United States.....	49.2
Securities of government agencies (not guaranteed).....	3.3
Other securities, less reserves.....	240.5
Land, structures, and equipment, less reserves.....	6,902.3
Acquired security or collateral.....	26.4
Capital stock and paid-in surplus of government corporations.....	166.5
Other assets.....	330.5
Total assets.....	11,434.7
<i>Liabilities</i>	
Accounts payable and accrued liabilities.....	615.8
Trust and deposit liabilities.....	2,565.8
Bonds, debentures, and notes payable:	
Guaranteed securities issued to Treasury.....	9,125.6
Guaranteed securities—public issues.....	b
Other liabilities.....	1,015.7
Capital (owned by the United States):	
Capital stock.....	325.0
Paid-in surplus.....	5.7
Expended appropriations.....	10.2
Earned surplus.....	-2,229.1
Total liabilities.....	11,434.7

^a Including assets and liabilities of the Defense Plant Corporation, Defense Supplies Corporation, Metals Reserve Company, Rubber Reserve Company, and Disaster Loan Corporation, each of which was dissolved and merged with the RFC effective July 1, 1945.

^b Less than \$50,000.

Source: *Treasury Bulletin*, March, 1946, pp. 71-72, 75.

tribution toward marshaling the productive facilities of the American people for war.

The RFC, one might say, is an investment bank, a consumption credit agency, a farm financing institution, and an urban-mortgage bank—in fact,

a combination of all these, for its interests range all the way from the granting of assistance to credit unions to the purchase of entire security issues of political bodies.

The present scope of the RFC's activities is indicated by the recent data of its assets and liabilities which are presented in Table 43.

ORGANIZATION OF THE RFC

The RFC was created as a federal corporation by legislation adopted on January 22, 1932. It was hurriedly organized and was opened for business eleven days later. The original legislation allotted to it a life of ten years, but its loan and investment operations were to be completed within one year. But both its life and its period of lending and investment have been extended from time to time, now by presidential proclamation, and now by enactments of Congress.

The RFC was originally an independent agency of the federal government, but in April, 1939, it was transferred to the jurisdiction of the newly created Federal Loan Agency. The transfer had little effect upon its operations, if for no other reason than that the former president of the RFC, Mr. Jesse Jones, became the head of the new agency as Federal Loan Administrator. By a presidential order of February 24, 1942, the functions and powers of the Federal Loan Agency and of the Federal Loan Administrator were transferred to the Department of Commerce; but again the transfer was not of great significance, because by that time Mr. Jones had become the Secretary of Commerce. When, however, President Roosevelt asked Mr. Jones to relinquish his post as Secretary of Commerce to make way for the appointment of former Vice-President Wallace, Congress, by the act of February 24, 1945, re-established the Federal Loan Agency as an independent unit. Many members of Congress were loath to have the vast lending power of the RFC and its subsidiaries fall into the hands of a "visionary" such as they thought Mr. Wallace to be.

Although subject to the general jurisdiction of the Federal Loan Administrator, the RFC is immediately managed by a board of five directors who are chosen by the President with the advice and consent of the Senate. Its principal offices are in Washington, and it maintains numerous regional offices throughout the country.

FUNDS OF THE RFC

The original capital of the RFC, in the amount of \$500,000,000, was supplied in full by the Secretary of the Treasury on behalf of the federal government. In obedience to legislation adopted in 1940, \$175,000,000 of the original capital was retired at par.

To raise other funds, the RFC is authorized to issue notes, debentures, bonds, and other obligations, which are salable to the Treasury or to the general public. Originally the total of its outstanding indebtedness was

limited to \$1,500,000,000, but its capacity to borrow has been constantly expanded—it is now estimated to amount to approximately \$17,000,000,000. The obligations of the RFC, which are guaranteed as to principal and interest by the federal government, were for the first few years sold entirely to the Treasury, but, beginning in 1939, large blocks were made available for private investment. In October, 1941, however, the Treasury adopted a policy of replacing guaranteed securities by its own direct obligations; accordingly, the current practice is for the RFC to sell its obligations to the Treasury which, in turn, raises the necessary funds through its regular borrowing operations.

PEACETIME OPERATIONS OF THE RFC

Assistance to Privately Owned Financial Institutions.—As one of the primary reasons for the establishment of the RFC in 1932 was to save the American banking system from utter demoralization, it has numerous powers to come to the assistance of jeopardized banks as well as those already suspended. It is empowered to give financial aid to commercial banks, savings banks, trust companies, savings and loan associations, insurance companies, mortgage loan companies, credit unions, agricultural credit corporations, and livestock credit corporations.

Its assistance may be made available in several ways: (1) it may make loans, if adequately secured, to the foregoing types of institutions; (2) it may purchase the preferred stock of such institutions, provided that the stock is not subject to "double liability" or to other similar contingencies; and (3) it may purchase the capital notes and debentures of such of these institutions as are unable, because of the limitations of their charters or of state law, to issue preferred stock. The total of its outstanding advances to insurance companies, either in the form of loans or the purchase of securities, is limited to \$75,000,000; the total of its advances to mortgage loan companies, savings and loan associations, and other agencies in the field of real-estate finance, to \$100,000,000.

Besides providing funds for solvent institutions, the RFC may also make loans to receivers of commercial banks, savings banks, and savings and loan associations to assist them in reorganization or liquidation, as the case may be. Alternatively, the RFC may assist receivers by purchasing the assets of insolvent institutions.

Assistance to Other Private Business Organizations.—The legislation which governs the operations of the RFC specifically authorizes it to provide financial assistance to three types of business organizations other than financial institutions. (1) It may assist in the reorganization, consolidation, maintenance, and construction of railroads engaged in interstate commerce by making secured loans (if funds are not available on reasonable terms through private channels), by purchasing their obligations, and by guaranteeing the payment of the interest and principal on their obligations sold

to others. Assistance may be granted both to solvent railroads and to trustees and receivers of roads in bankruptcy or receivership; but all commitments must be approved by the Interstate Commerce Commission; and the aggregate of all loans, purchases of obligations, and guaranties of obligations must not exceed \$500,000,000.

(2) Loans may also be granted by the RFC to individuals, partnerships, and corporations engaged in the mining, milling, and smelting of ores, provided that the borrowers are "recognized and established" concerns. Other loans may be made available for the prospecting of new mining areas, if there is reasonable promise that quantities of gold, silver, tin, or other materials important for war purposes will be discovered. Prospecting or development loans are limited individually to \$20,000, although they may be increased to \$40,000 in some instances; total loans of this character must not exceed \$10,000,000.

(3) Persons, associations, and corporations engaged in the exploitation of American fisheries, whether in producing, storing, handling, packing, processing, carrying, or marketing, are also specifically designated as eligible for RFC funds.

Besides authorizing financial assistance for railroads, mining companies, and fishing enterprises, the legislation at present in force permits the RFC to advance funds, by direct loans or by the purchase of securities, to "any business enterprise" when private credit is not available in reasonable quantities or at reasonable rates of interest. In this field of operation, the RFC may act independently or may participate with banks and other lending institutions in advancing funds.

Financing of State and Local Governments.—The RFC has the authority to use a portion of its resources in making advances to state governments and to their political subdivisions to assist them in undertaking certain kinds of projects. (1) It may grant loans to public school authorities to aid them in refinancing indebtedness incurred prior to August 24, 1935, for the construction, maintenance, and operation of school facilities. When refinancing loans have been granted, additional loans for repairs and improvements may be authorized, but the total amount for all purposes is limited to \$10,000,000. (2) An aggregate of \$125,000,000 may be loaned by the RFC to drainage and irrigation districts—whether political subdivisions, nonprofit mutual companies, or incorporated water-users' associations—for the refinancing of outstanding indebtedness or for the development of drainage and irrigation projects. (3) Other loans may be made to state governments for the benefit of their workmen's compensation insurance funds. (4) The RFC may make loans to states or purchase securities from them to finance the acquisition of rights-of-way for road projects eligible for federal aid, provided that the projects have the approval of the Federal Public Roads Administration. (5) Finally, the RFC is authorized to make loans to states and to their political subdivisions to aid in financing projects author-

ized by federal, state, or municipal law; such loans are made "for the purpose of maintaining and promoting the economic stability of the country or encouraging the employment of labor." Alternatively, funds may be provided by the purchase of securities of these political bodies.

Financial Assistance to Other Federal Agencies.—Certain federal agencies have relied or may rely upon the RFC for all or a portion of their operating funds. In this connection, the RFC is authorized to make loans to the Secretary of Agriculture to enable him to assist tenant farmers, sharecroppers, and others to acquire farm property in their own name, to supply funds for the building of rural electric systems, and to make rehabilitation loans to needy farmers; it may make loans without limit, if adequately secured, to the federal land banks and to the federal intermediate credit banks; it may purchase the debentures or other obligations of the Federal Deposit Insurance Corporation to the amount of \$250,000,000; and it may purchase from the Public Works Administration as much as \$400,000,000 worth of securities acquired in the promotion of its projects undertaken in cooperation with state and local governments.

Aids to Agriculture.—In addition to supplying funds for agricultural purposes through the Secretary of Agriculture and the federal land and intermediate credit banks, the RFC may directly come to the aid of the farming population of the country (1) by assisting "any bona fide institution" to finance the carrying and orderly marketing of agricultural commodities and livestock produced in the United States; (2) by accepting drafts and bills of exchange drawn upon it to finance the exportation of agricultural and other products; and (3) by making loans to finance the sale of surplus agricultural products in foreign markets when such sales cannot be reasonably financed in any other manner.

WARTIME ACTIVITIES OF THE RFC

National Defense and War Powers.—Legislation adopted by Congress in 1940 and thereafter placed extensive new powers in the hands of the RFC to act directly or indirectly in supplying all kinds of materials for national defense and war purposes. It was empowered to make loans to any corporation for the construction of plants, the acquisition of equipment, and for working capital to be employed in the production of "strategic and critical" materials and equipment. Upon the request of the Secretary of Commerce and with the approval of the President, it was authorized to purchase capital stock in such corporations. With a similar request and approval, it could establish subsidiary corporations to engage in such activities as the purchase and sale of strategic materials, the erection of plants to produce war goods, the manufacture of such goods (if deemed necessary by the President), the purchase and sale of railroad and aircraft equipment, and the provision of facilities for the training of aviators. The vast scope of the RFC's powers is indicated by the language of the act of

June 11, 1942, which authorized it to make loans to business enterprises and to purchase their obligations and capital stock "for any purpose deemed by the Corporation to be advantageous to the national defense."

Wartime Subsidiaries of the RFC.—In exercising some of the powers described in the foregoing paragraph, the RFC operated, so to say, through a group of corporate subsidiaries. The Rubber Reserve Company was chartered on June 28, 1940, to acquire a stock of crude rubber and to devise means for the production of synthetic rubber. The Metals Reserve Company, chartered on the same date, was established for the purpose of accumulating stocks of metals necessary for war purposes, such as manganese ore and tin, and to allocate such materials to private manufacturers having war contracts. The Defense Plant Corporation, the most notable of the "war corporations," was chartered on August 22, 1940. Its function was to purchase and construct plants for war production and to acquire machinery and equipment for their operation. Such capital assets were leased to private operating companies which were given options for their purchase upon the termination of the war. The Defense Supplies Corporation, established on August 29, 1940, was assigned the task of acquiring stocks of miscellaneous materials, including high-test gasoline, nitrates, and wool. The Defense Homes Corporation, chartered on October 23, 1940, was established to relieve the housing shortage in defense areas by erecting homes designed to be permanent additions to the respective communities. The War Damage Corporation (which succeeded the War Insurance Corporation established on December 13, 1941) provided for the insurance of real and personal property for protection against damage caused by enemy action or by the action of American forces in resisting enemy attacks. The U.S. Commercial Company, incorporated on March 27, 1942, had for its principal objective the procurement from sources outside the United States of many kinds of strategic materials and foodstuffs as well as the development of new foreign sources of such commodities. The Petroleum Reserves Corporation was chartered on June 30, 1943, to acquire reserves of crude petroleum from foreign sources, to build facilities for refining, storage, and the like in foreign countries, and to allocate the supplies thus accumulated.

Chapter 35

BANKING INSTITUTIONS FOR THE CONSUMER

The Scope of Consumption Credit

Consumption credit may be defined as the obligation to make payment or the right to receive payment in the future on account of a present transfer of consumption goods. As used here, the term *consumption goods* includes real estate, commodities, and services acquired by individuals for personal use rather than for productive employments; it therefore comprises such durable goods as homes, automobiles, refrigerators, household furniture, and personal jewelry, other tangible goods such as clothing and food, and the services of doctors, dentists, undertakers, educational institutions, and others.

Consumption credit is made available in two principal ways: the consumer may acquire consumption goods from the seller on the basis of a promise to pay in the future; or he may borrow the funds necessary to acquire the goods and thus be able to pay the seller in full immediately. In the present chapter, we shall be interested almost exclusively in the operations of specialized banking institutions which make short- and intermediate-term loans to enable consumers to acquire consumption goods by cash payment, although some of these institutions, such as the sales finance companies, instead of providing cash to the consumer so that he may pay the seller, advance the funds directly to the seller.¹

Excluded from our discussion, therefore, is the great volume of consumption credit granted to buyers at department stores and other retail outlets by means of book or ledger accounts. A large volume of such credit is made possible by way of loans granted by the commercial banks to the retail merchants, but such loans are negotiated as "commercial" rather than as consumption credit transactions, and their nature has been adequately discussed in preceding chapters. Also excluded is the credit granted by those who perform personal services, as when doctors, dentists, repairmen, and others await the payment of their "bills" for short or long periods.

¹ An examination of long-term consumption credit, which originates almost invariably in the construction, purchase, and modernization of residences, is deferred to Chapter 39.

CHARACTERISTICS OF CONSUMPTION CREDIT

Consumption credit differs from commercial credit in several important respects. The size of the amount involved in a consumption credit transaction is on the average much smaller than the average loan granted for productive purposes. For example, the average loan made by pawnbrokers is estimated to range from \$10 to \$50, that of the personal loan departments of commercial banks at \$220, and that of credit unions, around \$100.

The small size of the average loan makes for a disproportionately heavy cost of managing loan transactions. The expense incident to interviews, investigations, bookkeeping, and collections does not vary much whether a loan of \$25 or a loan of \$5,000 is granted. Moreover, those who borrow from consumption finance institutions are generally not so well known as are the businessmen who borrow from the commercial banks; hence it is more costly to ferret out information to guide the financial institutions in deciding whether or not to make loans. The heavy costs of administration mean that consumption banking institutions can operate successfully only by charging rates of interest much higher than those charged by commercial banks on productive loans. The rates charged by the former sometimes seem exorbitant, but generally it is found that the rates vary in direct proportion to the costs of administration.

The high cost of consumption credit, it is interesting to note, is not due to a heavy incidence of "bad debts." The great majority of obligations due the consumption banking institutions are met with scrupulous honesty. Whether because of their moral standards, the fear of being dispossessed of property pledged as collateral, the shame of having comakers embarrassed—whatever the reason, most consumption borrowers make every effort to fulfill their contractual obligations.²

An important feature of consumption credit is that it is to a large extent self-perpetuating. Though most borrowers repay their obligations when due, it is often necessary to negotiate new loans with the same or with other institutions to provide the funds out of which repayment is made. Such a situation is easily understood when one remembers that the use of consumption credit very rarely increases the income-earning capacity of the borrower. Consumption loans are not "self-liquidating"—they must be retired, if at all, out of the borrowers' normal sources of income. The very fact that a person's current income is insufficient to meet all his consumption expenses would indicate the difficulty of retiring a debt contracted to supplement that income.

VOLUME OF CONSUMPTION CREDIT

Statistics of the volume of short-term consumption credit outstanding in the United States have been compiled by the federal Bureau of Foreign

² "Experience has shown that consumer indebtedness is one of the best investments today."
—Bureau of the Census, *Sales-Finance Companies* (1940), p. 28.

and Domestic Commerce and (since September, 1942) by the Board of Governors of the Federal Reserve System.³ Short-term credit is defined as that wherein the original credit extension does not exceed five years. The statistics include data for installment sales credit whether financed by merchants or by sales finance companies and other consumption credit institutions; installment cash loans, such as those granted by commercial banks, industrial banks, personal finance companies, and credit unions; charge accounts of merchants; open-credit cash loans, such as the single-payment loans of commercial banks and of pawnbrokers; and service credit, such as that granted by doctors and dentists. The end-of-the-year data for these five types of credit and for their total in the period since 1929 are presented in Table 44.

TABLE 44

SHORT-TERM CONSUMPTION CREDIT OUTSTANDING IN THE UNITED STATES, 1929-1945

(In millions of dollars)

End of year	Total	Installment sales	Installment cash loans	Single-payment loans	Charge accounts	Service
1929	7,637	2,515	652	2,125	1,749	596
1930	6,839	2,032	674	1,949	1,611	573
1931	5,528	1,595	619	1,402	1,381	531
1932	4,082	999	516	962	1,114	491
1933	3,905	1,122	459	776	1,081	467
1934	4,378	1,317	532	875	1,203	451
1935	5,419	1,805	802	1,048	1,292	472
1936	6,771	2,436	1,065	1,331	1,419	520
1937	7,467	2,752	1,195	1,504	1,459	557
1938	7,030	2,313	1,265	1,442	1,487	523
1939	7,981	2,792	1,644	1,468	1,544	533
1940	9,153	3,450	2,005	1,488	1,650	560
1941	9,899	3,744	2,180	1,601	1,764	610
1942	6,485	1,491	1,464	1,369	1,513	648
1943	5,338	814	1,147	1,192	1,498	687
1944	5,777	835	1,204	1,251	1,758	729
1945	6,734	903	1,462	1,616	1,981	772

Source: Federal Reserve Bulletin.

DEVELOPMENT OF CONSUMPTION CREDIT INSTITUTIONS

Most of the specialized banking institutions which provide credit for consumption purposes are of relatively recent origin. The year 1910 may be set as approximately the beginning of the new era. Before that year, individuals who were under the necessity of borrowing for consumption purposes were generally compelled to call upon pawnbrokers and unlicensed lenders. The more substantial institutions, such as the commercial banks,

³ See Duncan McC. Holthausen, "Monthly Estimates of Short-Term Consumer Debt, 1929-1942," *Survey of Current Business*, November, 1942, pp. 9 ff.

looked upon borrowing for consumption as indicative of extravagance and waste, and not consonant with the cherished virtue of thrift. Too often the fact was overlooked that extraordinary expenditures, as for medical care and funeral expenses, placed great burdens upon low-income families—burdens made all the more oppressive by the necessity of paying exorbitant rates of interest. Since 1910, a new attitude towards consumption credit has gradually come to be entertained, namely, that it is just as reasonable for consumers to pay for durable goods in installments while using them, as it is for business enterprises to borrow funds, as by bond issues, to acquire buildings and machinery for productive purposes.

The establishment of the Russell Sage Foundation in 1907 was a landmark in the development of institutional facilities for consumption credit, for almost immediately, on the basis of extensive studies, it began to campaign for the adoption of small loan laws and the establishment of semi-philanthropic remedial loan associations. The first American credit union was established at Manchester, New Hampshire, in 1909; in the following year, Arthur J. Morris, an attorney of Norfolk, Virginia, was instrumental in the organization of the first industrial bank; and in 1911, the first of the modern small loan laws was adopted by the state of Massachusetts. About 1915, the sales finance companies began to gain a position of prominence, although a few of them had been organized as much as ten years earlier. The commercial banks were slow in realizing the potentialities of consumption credit, for it was not until 1925 and after that they turned their attention to the organization of personal loan departments.

Federal Regulation of Consumption Credit

A significant development in the field of finance during the period of the Second World War was the introduction and constant enlargement of a federal program to control the extension of consumption credit. The program was designed to restrict the creation of new consumption credit in view of the serious shortages of consumption goods of many varieties, so that an inflationary pressure upon the price level could be avoided. President Roosevelt, by an executive order of August 9, 1941, authorized the Board of Governors of the Federal Reserve System to formulate the regulations and to enforce them.

The regulations of the Board of Governors designated a long list of consumption goods which were to be subject to restrictions; these applied both to the sales of the designated goods on the installment plan and on charge accounts, and to the granting of installment and single-payment loans for the purchase of the designated goods and for other consumption purposes; and they required that licenses be obtained by all retail dealers engaged in selling the designated goods on the installment plan or on charge account and by all financial institutions engaged in granting consumption

loans. Subject to some exceptions, the regulations governing sales required a down-payment equal to at least one third of the "cash price" of a designated good, payments in the case of installment contracts of approximately equal amounts at intervals not exceeding one month, and maturities of obligations not exceeding twelve months. Financial institutions, in granting consumption loans, were made subject to similar restrictions; for example, a loan whose proceeds were to be used to buy a designated article could not exceed two thirds of its "cash price," so that the borrower-purchaser still had to have the means to make the down-payment of one third.

Most of the regulations of the Board of Governors were continued in effect throughout the greater part of the year 1946. They had been retained after the cessation of hostilities because of the board's conviction that the threat of inflation was greater in the immediate postwar period than it had been during the period of conflict. With the passing months, however, opposition toward all kinds of wartime restrictions steadily mounted, and the control of consumption credit came to be denounced by financial institutions, by retail dealers, and by consumers who wanted to be able to borrow or buy on liberal terms. Such a change in public opinion evidently caused the Board of Governors to come to the conclusion that many features of its regulations could no longer be enforced; accordingly, it took action, effective December 1, 1946, to suspend many of the regulations and to liberalize those which remained.

Sales Finance Companies

The acquisition by thousands of consumers of new and used automobiles and other durable goods on the installment plan has been largely made possible by the assistance of sales finance companies. Sales finance companies are distinguished from other consumption credit institutions in that their principal business involves the purchase from dealers of installment notes and other credit instruments of consumers, rather than the direct extension of loans to the consumers themselves. In the typical transaction in which a sales finance company participates, the retail dealer extends credit on the installment plan to his customer, and the sales finance company, as it were, reimburses the dealer by acquiring from him the customer's promise to pay. Although the designation *sales finance company* is widely recognized, institutions of this type are also known as discount companies, acceptance companies, and credit companies.

Professor Seligman found instances of installment selling in the United States as early as 1807, and he points out that sewing machines, pianos, and other durable goods were frequently sold on the installment plan long before the beginning of the present century.⁴ Nevertheless, installment

⁴ Edwin R. A. Seligman, *The Economics of Installment Selling* (New York: Harper & Brothers, 1927), I, 14 ff.

financing as an organized industry is usually said to have originated about the year 1915. Some finance companies were in operation earlier, but they were primarily interested in the discount of book accounts rather than in the purchase of installment notes arising from sales to consumers. The country's largest sales finance company, the General Motors Acceptance Corporation, was established in 1919.

Until approximately the year 1933, the sales finance companies purchased almost all the paper arising from installment sales other than that financed directly by retail merchants. Most of the commercial banks still hesitated to use their resources directly to finance the sale of consumption goods, although many of them were quite willing to make loans to the finance companies on the security of pledged installment paper. Thus to a large extent the finance companies served as middlemen between the commercial banks and the retailers of consumption goods—the banks supplying the credit and the finance companies taking care of the technical details. Well before the beginning of the Second World War, however, the commercial banks as well as the industrial banks had begun to show great interest in the direct purchase of installment paper. This interest was prompted by the need to put idle resources to work, by the unexpectedly low rate of losses on installment paper, and by the excellent record of earnings of the sales finance companies.

ORGANIZATION

Sales finance companies are corporations organized under the general incorporation laws rather than under the banking statutes of the various states. The great majority of the companies have only one or two offices in a single city, and their business is purely local in character; others carry on regional operations; and still others have nation-wide facilities. The Bureau of the Census reported 1,086 sales finance companies in operation in 1939, of which 927 operated in single cities and maintained in total only 941 offices. The remaining 159 companies operated a total of 1,607 offices, and, in that year, accounted for purchases of \$1,733,228,000 of retail paper out of a total of \$1,990,283,000 purchased by all companies.⁵

Some of the finance companies buy only wholesale and retail automobile paper; others deal both in automobile paper and in that created in the sale of other durable goods; and still others, in addition to purchasing installment paper, discount book accounts, make small loans to consumers, and provide other financial services.⁶ Some of the companies operate as subsidiaries of manufacturing companies; some are affiliated with manufacturing companies through holding companies which simultaneously control the stock of the manufacturing companies and of the finance companies; and

⁵ Bureau of the Census, *Sales-Finance Companies* (1940), p. 5.

⁶ Of the 2,548 offices reported in operation in 1939, 1,324 handled automobile paper exclusively, 198 handled no automobile paper, and the remainder dealt in "mixed" paper.—*Ibid.*, p. 18.

others are independent. When a finance company is owned by or affiliated with a manufacturing company, dealers in the latter's products are generally urged (required?) to sell their installment paper to the related finance company. In this way, the manufacturing company is able to operate upon a basis of cash sales, but at the same time the profits to be derived from installment selling are retained within the single organization.

GOVERNMENT REGULATION

Until 1935, the operations of sales finance companies were unregulated by state or national authorities, and, indeed, most companies are still free of any special governmental supervision. Beginning in 1935, a few of the states turned their attention to the matter of bringing the finance companies under supervision and of subjecting their operating practices to more or less detailed limitations. Five states—Indiana, Maine, Wisconsin, Michigan, and New York—now have statutes which regulate some or all phases of retail installment financing, although a majority of these laws are primarily concerned with the installment selling of automobiles.

All sales finance companies were made subject to the consumption credit regulations promulgated by the Board of Governors of the Federal Reserve System, beginning in 1941. Other federal agencies have from time to time attacked what are considered unfair practices in the sales finance field. The Federal Trade Commission has been active in trying to promote policies which would reveal to installment buyers the exact nature and amount of the charges to which they are subject. Thus, for example, it has brought proceedings against companies for advertising a total finance charge of 6 per cent when the effective rate was much higher.⁷ And the Department of Justice has intervened to remove restraints of trade resulting from the alleged oppressive practices of finance companies owned by or affiliated with manufacturing companies.⁸

PURCHASE OF RETAIL INSTALLMENT PAPER

Although some retail merchants directly finance sales of their merchandise on the installment plan, many of them prefer to turn the transactions over to sales finance companies or to other banking institutions. In that way, the merchants receive the proceeds of their sales immediately, and at the same time they are not bothered with such tasks as the periodical collection of accounts. In peacetime, the great bulk of retail installment paper arises from the sale of new and used automobiles, but a large volume is also created in the sale of mechanical refrigerators, furnaces and stoves, household furniture, musical instruments, jewelry, and other durable goods.

The consumer ordinarily does not enter into direct negotiations with

⁷ See Willbur C. Plummer and Ralph A. Young, *Sales Finance Companies and Their Credit Practices* (New York: National Bureau of Economic Research, 1940), pp. 201-203.

⁸ *Ibid.*, pp. 271-275.

the sales finance company when he buys on the installment plan, although he does make the installment payments to it when the contract has been completed. The finance company supplies the dealer with the necessary forms and establishes all the terms of the contract, such as the amount of down-payment, the size of the periodical payment, the frequency of payment, the duration of the contract, and the various charges. The buyer signs a promissory note, or a series of notes, one for each installment, and the dealer sells the note or notes to the finance company and receives the cash proceeds. The installment buyer must provide a chattel mortgage or sign a conditional sales contract or a bailment lease (the instrument used depending upon the nature of the articles sold and upon the provisions of state law respecting these instruments), and this document is surrendered to the sales finance company for its protection. In many instances, too, the installment buyer must pay the premiums for fire and theft insurance, and, in the case of automobiles, for collision—and possibly for conversion and confiscation—insurance.

Dealer's Position.—In selling the installment buyer's note or notes to a sales finance company, the dealer may or may not assume responsibility for losses which result from subsequent defaults. If the contract between the dealer and the sales finance company is one of "full recourse," the dealer must meet all unpaid installments upon the buyer's note or notes if the buyer defaults. In this instance, of course, he has the right to repossess the financed article to reimburse himself as far as possible. The assumption of full-recourse liability by dealers is rare at the present time in the installment selling of automobiles, but it is still quite common in the sale of other kinds of consumers' durable goods.

The dealer's contract may be a "nonrecourse" one, so that the sales finance company assumes the full risk of loss. Should defaults occur, the sales finance company has the right of repossession. Nonrecourse arrangements are not commonly employed by the larger finance companies, but many smaller companies, to gain dealers' goodwill when competition is severe, operate upon this basis.

The most common present-day arrangement between dealers and sales finance companies calls for the signing of a "repurchase agreement" by the dealer. The repurchase agreement may be described as a limited recourse contract. The dealer assumes responsibility for the unpaid installment obligations of his customers, but the agreement contains stipulations by which the responsibility may be shifted to the sales finance company. In automobile financing, for example, the sales finance company may agree to stand the loss if the installment buyer "skips" with the automobile, that is, disappears with it so that repossession is impossible, or if a public authority confiscates the automobile because it has been used for illegal purposes. Repurchase agreements often provide, also, that the sales finance company, upon the

default of the installment buyer, will bear the expenses of repairing financed automobiles which have been involved in collisions.

Finance Company Charges.—The total charges incurred by the installment buyer, when his transaction is handled through a sales finance company, may be found by subtracting the original unpaid balance of the purchase price from the sum of the monthly installments which he contracts to pay. But the exact nature and amount of the elements which are included in the total charges are not so easily determined. The sales finance companies have customarily issued "rate charts" which merely show, for specific unpaid balances, the size of the monthly installments payable for twelve-month periods, eighteen-month periods, and periods of other lengths. Thus a consumer, in financing an unpaid balance of \$600 in the purchase of an automobile, might be obligated to pay \$60 monthly on a twelve-month contract. The total of the charges would amount to \$120, but what would be the components of the total?

One important element among the charges in many installment contracts is the cost of insurance. The installment buyer of an automobile, for example, must generally provide fire, theft, and collision insurance; as the insurance is usually placed by the sales finance company, its cost is added to the original unpaid balance, so that the installment buyer really pays the premiums also upon an installment basis. The full cost of the insurance, however, can hardly be labeled an expense of buying on the installment plan, since the buyer's "equity" in the automobile, as well as that of the finance company, is protected. On the other hand, the sales finance company may gain some revenue from the insurance premiums, either by placing the insurance with affiliated companies, or by buying at wholesale rates from independent companies.

Other elements among the charges include certain allowances for the dealer from whom the sales finance company buys the installment paper. For one thing, the dealer may be permitted, upon his own initiative, to add a "pack"—an arbitrary write-up of the installment buyer's obligation—to augment his personal income from the transaction; in automobile finance, "packs" are often justified as counterbalancing overgenerous trade-in allowances. When "packs" are permitted, a small portion of each installment obviously belongs to the dealer, and it is paid to him by the sales finance company as it makes collections. The sales finance company, in addition, usually makes provision for the dealer by way of a "loss reserve" or "bonus." An arrangement of this kind calls for the setting aside by the sales finance company of a portion of each installment collected. The loss reserve is usually maintained in connection with recourse and repurchase contracts, and it is theoretically justified as a means of offsetting dealer losses from defaults. Often, however, loss reserves are more than enough to cover losses, so that the dealer is entitled to receive the balance in cash. A bonus, which is likely to accompany nonrecourse contracts, is nothing more or less than a

participation by the dealer in the total payments of the installment buyer beyond the original unpaid balance and any "pack" which may have been added. Both the overgenerous loss reserve and the bonus are evidences of the keen competition in the field of sales finance, for they are means by which the finance companies vie with one another to gain and hold the good will of dealers.

Whatever is left after insurance premiums, dealer's "pack," and dealer's loss reserve or bonus are eliminated may be described as the exact "finance charge" of the sales finance company.⁹ It is the amount out of which the sales finance company must meet its operating expenses and derive its profits. To state exactly what it amounts to in a specific transaction is virtually impossible, because of the uncertain size of the other charges which we have just discussed. Nor can the rate of interest which the installment buyer must pay be discovered simply by dividing the finance charge by the original obligation, since the installment payments constantly reduce the principal of the obligation. Thus the "6 per cent plan" which was widely advertised by some sales finance companies a few years ago actually required the payment of interest at an effective rate approximating 11 per cent per annum. In its study of automobile financing in the period 1935-1938, the Federal Trade Commission estimated the effective rate of interest on new-car transactions to range from less than 12 to nearly 20 per cent, and on used-car transactions, from 18 to 37 per cent.¹⁰

OTHER OPERATIONS

"Wholesale" and "Industrial" Finance.—In addition to purchasing retail installment paper, many sales finance companies provide other credit services including "wholesale finance," "industrial finance," the discount of book accounts, and the granting of small loans direct to consumers.

"Wholesale finance" is the supplying of credit to dealers to enable them to obtain goods from manufacturers and wholesalers. It has been especially important in the distribution of automobiles, for the automobile manufacturing companies have observed a policy of selling for cash when furnishing dealers with their "floor stocks." The dealers have been compelled to provide funds to carry the automobiles from the time of delivery until the time of sale to the ultimate consumers. Some have been able to purchase automobiles for cash out of their own capital funds, others have negotiated ordi-

⁹ "Unlike personal loans, most sales-finance paper includes charges which, in the case of automobile paper, will average 15 to 18 per cent or more of the face value of the note, of which about one-half (about 8 per cent of the face of the note) is for fire, theft, and collision insurance for the joint protection of debtor and creditor. About one-sixth is set aside for dealer loss reserve or loss bonus, payable to the dealer gradually over the life of the paper. About one-third is the actual finance charge of the company."—Bureau of the Census, *Sales-Finance Companies* (1940), p. 29.

¹⁰ For a comprehensive study of finance charges in the selling of automobiles in the period 1935-1938, see Federal Trade Commission, *Report on the Motor Vehicle Industry*, House Document No. 468, 76 Cong., 1 Sess., pp. 948-1058.

nary commercial loans with the commercial banks, but many have had as their only important source of funds the sales finance companies.

The wholesale financing of automobiles and of other durable goods ordinarily differs from the retail financing of the same goods in that for the former the total amount due is payable at a particular time rather than in installments, the period of financing is much shorter, and the finance charges are much smaller. But wholesale and retail financing are similar in that the sales finance company retains title to the goods or a lien upon them until full payment is made.

A dealer usually depends upon a single finance company for both wholesale and retail financing. Suppose, for example, that the dealer is buying a shipment of automobiles from a manufacturing company. The bill of lading is delivered to the finance company, which makes payment to the manufacturer, and the finance company then surrenders the bill of lading to the dealer and receives from him a promissory note due, say, in two months and bearing interest at a stipulated rate. The dealer must turn over to the sales finance company a trust receipt if the automobiles are to be in his possession, or a warehouse receipt if they are stored in a public warehouse. As the cars are sold to consumers, the dealer turns their installment notes over to the finance company, using part of the proceeds to repay his own note, the remainder of the proceeds, of course, being at his own disposal.

The credit sales of farm machinery to farmers, factory machinery to manufacturing companies, and equipment of various kinds to businessmen are often referred to as "industrial finance." Many sales of this kind are made on the installment plan, and sales finance companies purchase paper so originating. Because installment sales of this type represent the granting of productive credit, the finance charges are usually considerably less than those on consumption paper, and other terms are more favorable.

Discount and Purchase of Book Accounts.—Many sales finance companies not only buy installment paper but also make advances on the security of book accounts. Book accounts are merely the entries upon the ledgers of businessmen recording their claims against customers to whom they have sold goods in consideration of promises of future payment. As commercial banks until recently have looked upon book accounts as an unsatisfactory type of security for loans, businessmen having no other acceptable collateral have turned to the sales finance companies for cash resources.

Finance companies either make loans upon the security of the book accounts or purchase them outright. Usually the individuals who are obligated on the accounts are not notified of the assignment. They make payments in the customary manner, but the businessmen who have assigned the accounts must turn all remittances over to the finance company. All accounts sold or pledged which turn out to be worthless must be replaced by good accounts or be covered by cash payments by the assignor. Financing by means of the sale or pledge of book accounts is sometimes quite costly,

as the effective rates charged by finance companies often run from 12 to 18 per cent per annum.

SOURCES OF FUNDS

Sales finance companies obtain from several sources the funds which they advance to manufacturers and dealers in the purchase of installment paper, to businessmen in discounting book accounts, and to individuals in making small loans. The importance of the various sources differs somewhat according to the size of the companies and the extent of the territories in which they carry on their operations. An important source of funds for all companies is the capital contributed by the stockholders in the purchase of common and preferred stocks, and that accumulated out of earnings not paid out as dividends.

The commercial banks serve as the outstanding source of funds for virtually all sales finance companies. The companies establish "lines of credit" with one or more commercial banks, depending upon the volume of their operations. The stronger companies are generally able to borrow from the banks without security, but the smaller companies are frequently required to deposit installment paper and other security with trustees for the safety of the bank loans. As an industrial group, the sales finance companies are highly favored by the commercial banks as far as interest charges are concerned. A survey by the Board of Governors of the Federal Reserve System of the rates of interest being charged by member banks in the period from April 16 to May 15, 1942, showed that the lowest rate was being paid by sales finance companies, namely, 2.3 per cent. This rate compared with an average rate of 3.4 per cent charged on all commercial loans, and with such high average rates as 4.6 per cent on loans to the petroleum industry, and 4.5 per cent on loans to the service industries.¹¹

Some of the more important companies also raise short-term funds by the sale of their unsecured promissory notes in the open market, but the sale of long-term obligations is, relatively speaking, only a minor source of funds for the sales finance companies.

Personal Finance Companies

Personal finance companies (also commonly called "small loan companies") are organized under special state statutes for the purpose of making loans of small amount chiefly for consumption purposes. The "companies" may be individuals, partnerships, associations, trusts, corporations, or other forms of enterprise. Statutes which authorize the establishment of personal

¹¹ "This advantageous rate for finance companies, which has long been established, rests largely on successful bank experience with such loans over a period of years. Furthermore, the large finance companies are in a favorable competitive position in the loan market, each being able to obtain funds from a variety of bank and non-bank sources, including open market borrowing." See *Federal Reserve Bulletin*, November, 1942, pp. 1094-1096.

finance companies have been enacted to meet the pressing demand for financial facilities for people of small means. New York adopted a small loan law as early as 1895, but the Massachusetts legislation of 1911 is usually regarded as the first of the "modern" small loan laws. Progress was slow until a campaign for such legislation was undertaken by the Russell Sage Foundation, which was established in 1907. On the basis of comprehensive studies in the field of consumption finance, the foundation prepared a "Uniform Small Loan Law," the first draft of which was published in 1916. Revised drafts have appeared from time to time—the seventh draft in 1941—but they have all been based upon the principle that adequate loan facilities for the masses are possible only if the lenders are freed from the restrictions of the usury laws. Thirty-two states now have small loan acts more or less closely modeled upon the drafts prepared by the Russell Sage Foundation, and nine others have statutes of other types.¹²

Companies organized under the small loan laws are generally required to have a minimum capital in the vicinity of \$25,000 for each office operated (\$20,000 in the Uniform Small Loan Law). Specific records must be kept, bonds must be provided, standard forms must be used, and the books of the companies must be open to examination by the state authorities.

Although some three thousand small loan companies operate in the United States, a great part of the business is concentrated in the hands of a few national organizations which operate chains of offices throughout the country or in various regions of the country. Some of the larger companies establish subsidiaries to operate in each state in which they plan to conduct business, and the subsidiaries in turn operate branch offices throughout each state; in this manner, the regulations of dissimilar state laws can be more easily observed. The scope of operations of all personal finance companies is indicated by the data presented in Table 45.

LOANS OF PERSONAL FINANCE COMPANIES

Legal Regulations.—The total outstanding borrowings of an individual from a personal finance company is limited by most of the small loan laws to \$300. The authorized rates of interest vary somewhat from state to state. The Uniform Small Loan Law permits a maximum rate of 3 per cent per month on unpaid balances of \$100 or less, and 2 per cent on unpaid balances in excess of \$100. New York permits a charge of 2½ per cent on the first \$100, and 2 per cent on the remainder; Pennsylvania, 3 per cent on the first \$150, and 2 per cent on the remainder; Virginia allows 3½ per cent monthly, and Minnesota 3 per cent, on the total unpaid balance; while Georgia provides for a maximum monthly rate of only 1½ per cent, regardless of the size of the unpaid balance.¹³

¹² Pollack Foundation for Economic Research, *Small Loan Laws of the United States* (Pamphlet 37, 1941), p. 6.

¹³ For the regulations in other states, see Pollack Foundation, *op. cit.*, pp. 4-5.

As a rule, no "investigation fees," "finance charges," or other assessments in addition to the interest are permitted, although the expense of recording chattel mortgages and similar documents, if actually paid by the finance companies, may usually be charged against the borrowers. Compounding of interest is forbidden. Borrowers, moreover, must be allowed the privilege of repaying their loans at any time, and they must be subject to interest charges only for the period of time that the loans are actually outstanding.

Lending Procedure.—The applicant for a loan usually calls in person at the office of a personal finance company, and there he is interviewed by the manager or his assistant. He is asked to fill out a loan application giving information as to the purpose of the loan, his outstanding indebtedness, his living expenses, his income, and his means of repayment. Before the appli-

TABLE 45

INSTALLMENT LOANS OF PERSONAL FINANCE COMPANIES, 1929-1945
(In millions of dollars)

Year	Loans granted	Loans outstanding (end of year)
1929	463	263
1930	503	287
1931	498	289
1932	376	257
1933	304	232
1934	384	246
1935	423	267
1936	563	301
1937	619	350
1938	604	346
1939	763	435
1940	927	505
1941	983	535
1942	798	424
1943	809	372
1944	876	388
1945	978	445

Source: Federal Reserve Bulletin.

cation is granted, a credit investigation is made to verify the facts and figures offered by the applicant; and often a representative of the finance company visits the home of the prospective borrower—to judge his character from its appearance.

Most loans of personal finance companies are made on the security of chattel mortgages on household furniture, although automobiles and other kinds of property are frequently pledged. Chattel mortgages on household furniture are taken chiefly for their psychological value, for the managers of the finance companies realize that the seizure and sale of the furniture is a poor means of enforcing payment. Not only is the amount realized

often insufficient to reimburse a finance company, but also such "strong-arm tactics" may destroy whatever good will the company may have enjoyed in the community. The psychological basis of the chattel mortgage, however, is found in the fact that most borrowers will expend every effort to make payment before accepting the public dishonor of having their furniture removed.

Some loans are made on the security of wage assignments, by which the borrowers in writing pledge a portion of their wages—not more than 10 per cent in the Uniform Small Loan Law—for the payment of the loans; others are made on the unsecured promise of the borrowers; and a few are granted on the promise of the borrowers and their comakers—that is, third parties who are asked to sign the notes for the benefit of the borrowers.

Industrial Banks

Industrial banks are so called because they were originally organized for the purpose of making consumption loans to industrial workers. The founder of the first of these organizations, Arthur J. Morris, of Norfolk, Virginia, realized the need of financial institutions whose principal function would be the extension of loans to industrial wage earners who have neither the credit standing nor the collateral to borrow from the commercial banks. At the present time, however, industrial banks are distinguished from other consumption credit institutions, not because of any preference for industrial wage earners as borrowers, but by the fact that they obtain the larger part of their loan funds through the receipt of deposits and the sale of investment certificates.¹⁴

Morris was instrumental in the establishment of the Fidelity Savings and Trust Company in Norfolk in 1910, and he used this institution as a model for the promotion of similar companies in other cities. In 1914, Morris and his associates formed the Industrial Finance Corporation to assist in the establishment of additional industrial banks to operate according to the "Morris Plan"; this corporation remains today the top holding company of a complicated financial structure in which various subsidiaries perform miscellaneous services for the Morris Plan industrial banks. Most of the industrial banks which are at present in operation in the United States are not affiliated with the Morris Plan organizations; in a word, they are independently incorporated and locally owned, and in that respect they are similar to unit commercial and savings banks.

LEGAL STATUS

Approximately two thirds of the states have enacted special statutes to permit the incorporation and operation of industrial banks; in other states,

¹⁴ This criterion is employed to distinguish industrial banks in Raymond J. Saulnier, *Industrial Banking Companies and Their Credit Practices* (New York: National Bureau of Economic Research, 1940), pp. 12-14.

industrial banks operate under the general incorporation laws, the banking statutes, or the small loan laws.

The industrial banking statutes of the states set down regulations with respect to the procedure of incorporation of industrial banks; minimum capital requirements, which are sometimes graduated according to the population of the cities in which the banks operate; the types of loans which may be granted, their size, and maturity; the kinds of securities which may be purchased; the charges which may be assessed, including maximum rates of discount, investigation or service fees, and delinquency fees; the receipt of deposits and the sale of investment certificates; reserve and surplus requirements; and the authority of state supervisory authorities to examine the records of industrial banks and to require them to submit reports of condition. In general, maximum loans are limited to specific sums, such as \$1,000, \$2,000, or \$5,000, or to specific proportions of a bank's paid-in capital and surplus; and maximum discount rates range from 6 per cent to 8 per cent. In many states, industrial banks may not receive deposits, although in a few, such as New York and Virginia, they may accept not only time deposits but also demand deposits. In those states which forbid the acceptance of deposits, the sale of investment certificates provides an adequate means of accumulating the savings of customers as loanable funds.

Those industrial banks which are permitted to accept deposits are eligible to insure their accounts with the Federal Deposit Insurance Corporation, and the Banking Act of 1933 made all industrial banks eligible for membership in the Federal Reserve System.

OPERATIONS OF INDUSTRIAL BANKS

Though many industrial banks have greatly expanded the scope of their operations in recent years, most of them are still primarily engaged in making installment consumption loans to individuals for the purchase of household furniture and equipment, for meeting the costs of medical care, and for other extraordinary expenditures. A borrower who is unable to provide satisfactory collateral security must usually have two acceptable comakers add their names to his promissory note. The borrower and the comakers are then jointly and severally liable upon the instrument. The note is discounted at a rate ranging between 6 and 8 per cent, and after a further deduction is made for investigation expenses, the proceeds are given to the borrower in cash. Repayment is usually required in weekly, semi-monthly, or monthly installments.

The traditional method of repayment calls for the purchase of "investment certificates" by the borrower by means of installment payments, rather than the application of the installment payments to the principal of the loan itself. When the investment certificates are fully paid, they are used to retire the principal of the loan. The policy of separating the loan transaction from the transaction in investment certificates makes it possible for the industrial

bank to claim that the *effective* rate of discount charged is the *quoted* rate; whereas the effective rate on a loan which is repayable in equal installments within a year is approximately double the quoted rate. The industrial banking laws of many of the states specifically recognize the legitimacy of separating the two transactions,¹⁵ while those of other states meet the situation by suspending the usury statutes in so far as they would apply to the loans of industrial banks. In states where industrial banks are legally permitted to charge high rates of interest, installment payments are usually applied to the principal of the loan itself or are accumulated in a savings deposit until they are large enough to retire the principal.

TABLE 46
INSTALLMENT LOANS OF INDUSTRIAL BANKS, 1929-1945
(In millions of dollars)

Year	Loans granted	Loans outstanding (end of year)
1929	413	219
1930	380	218
1931	340	184
1932	250	143
1933	202	121
1934	234	125
1935	288	156
1936	354	191
1937	409	221
1938	414	224
1939	455	230
1940	453	236
1941	458	241
1942	328	161
1943	279	126
1944	294	128
1945	317	146

Source: Federal Reserve Bulletin.

Industrial banks also make loans on single-name promissory notes without collateral to borrowers of excellent reputation and income-earning ability for both consumption and productive purposes. In some localities, merchants are able to borrow as much as \$10,000 from industrial banks with or without collateral and on terms not greatly different from those which obtain at the commercial banks. An increasingly large volume of industrial bank loans are made upon the security of chattel mortgages or other liens upon automobiles, household furniture, and other durable goods, and financing upon the basis of real-estate mortgages has been gaining favor with many industrial banks. In recent years, moreover, industrial banks have invaded the

¹⁵ Thus the law of North Carolina, in dealing with the pledge of investment certificates, states that "no such transaction shall in any way be construed to affect the rate of interest on such loans." Quoted in Saulnier, *op. cit.*, p. 44.

field of retail installment financing by purchasing from dealers the promissory notes of installment buyers on much the same terms as those of sales finance companies.

The volume of all types of installment loans granted by industrial banks in the period since 1929 may be found in Table 46.

SOURCES OF FUNDS

Most of the resources of the industrial banks are derived from the savings of the general public. Some of the savings are accumulated by the sale of investment certificates to nonborrowers either by the receipt of full payment immediately or by the accumulation of installment payments. Where state law permits, industrial banks commonly accept time deposits without employing the technique of selling investment certificates, and a few accept demand deposits subject to withdrawal by check. Other sources of funds are the capital contributions of stockholders and occasional loans obtained from the commercial banks.

Personal Loans of Commercial Banks

Before the middle 1920's, little interest was shown by commercial bankers in the expansion of their facilities to make consumption credit directly available to consumers. Commercial banks were willing to finance consumers indirectly by granting loans to sales finance companies, often with consumers' installment notes pledged as collateral; to retail dealers, also often upon the security of pledged consumers' notes; and to personal finance companies and industrial banks; and many did not hesitate to make single-payment loans to customers of excellent credit standing even though the credit was to be used for consumption purposes. But the opening of facilities for general lending for consumption purposes upon installment notes was commonly thought to be outside the rightful province of commercial banks.

A few commercial banks began about 1923 to encroach upon the field of the existing consumption credit institutions with the experimental establishment of "personal loan departments"; but the development of large-scale activities in that direction is usually dated from 1928, when a personal loan department was opened by the National City Bank of New York. At the present time, more than 1,500 commercial banks operate personal loan departments, and the number appears to be expanding constantly; several thousand other commercial banks provide direct consumption credit although they have not segregated this business in specialized departments.

LEGAL STATUS

One reason to account for the hesitancy of commercial banks in entering the field of direct consumption credit is the uncertain legal position of

personal loan departments in many states. Whether a commercial bank under existing laws may open a personal loan department, whether it may lend on the installment plan, whether it may charge discount rates comparable with those of other consumption credit institutions, whether it may assess investigation charges, service fees, delinquency fees, and the like, whether it may buy installment paper from dealers—all these have been matters of dispute in many states. Only about one fourth of the states have legislation specifically authorizing the operation of personal loan departments by commercial banks, and an additional one fourth appear to include such operation under the terms of the general banking statutes.¹⁶ The existing legislation is not always precise in stating exactly what the commercial banks may or may not do in the operation of their personal loan departments; in consequence, many aspects of the activities of personal loan departments in numerous states continue under a cloud of questionable legality.

OPERATIONS OF PERSONAL LOAN DEPARTMENTS

The techniques employed by commercial banks in supplying direct credit for consumption are, on the whole, similar to those of industrial banks. Comaker loans account for the largest monetary volume of transactions, although substantial sums are advanced upon unsecured single-name notes, and upon single-name notes secured by chattel mortgages, bailment leases, savings passbooks, stocks and bonds, and life insurance policies.¹⁷ The discount rates most commonly charged range from 6 to 8 per cent, but many loans are made at rates both below and above those limits. As the borrower is required to repay in regular installments, usually monthly, the effective rate of interest ranges (with numerous exceptions) from 12 to 16 per cent. The installment payments of the borrower may be applied directly to the principal of the loan or may be accumulated in a savings deposit account; if the latter, the account is pledged as security for the loan and is used at maturity to retire the principal. The separation of the loan transaction and the savings-deposit arrangement seems to be especially advisable for those banks which entertain doubts regarding the legality of their discount rates under the usury statutes. In calculating the total cost of borrowing from a personal loan department, the customer must consider, not only the effective rate of interest, but also the investigation fees, service fees, delinquency fines, and similar charges which the commercial banks frequently assess.

Many commercial banks, besides providing consumption credit by means of direct loans to their customers, compete with the sales finance companies in purchasing consumers' installment notes from retail dealers, and their policies in this direction are hardly distinguishable from those

¹⁶ See John M. Chapman and Associates, *Commercial Banks and Consumer Installment Credit* (New York: National Bureau of Economic Research, 1940), pp. 47-62, especially pp. 48-49.

¹⁷ *Ibid.*, pp. 37-41.

of the finance companies. The work may be undertaken by the personal loan departments or by separate "time-sales departments." Beyond this, the commercial banks as a group lend to the sales finance companies and the personal finance companies a large portion of the funds which those companies use in their consumption credit activities. Such loans, however, are generally negotiated by the commercial departments rather than by the personal loan departments of the banks.

A survey of the end-of-the-year volume of outstanding consumption credit of the commercial banks of the United States since 1939 is presented in Table 47.

TABLE 47

OUTSTANDING CONSUMPTION INSTALLMENT CREDIT OF COMMERCIAL BANKS, 1939-1945

(In millions of dollars)

End of year	Total	Automobile retail	Other retail	Repair and modernization	Personal cash loans
1939	1,093	382	155	209	347
1940	1,450	564	217	247	422
1941	1,694	721	288	234	451
1942	845	259	143	154	289
1943	514	136	68	89	221
1944	559	156	75	83	245
1945	731	211	97	121	302

Source: Federal Reserve Bulletin.

Credit Unions

Credit unions are cooperative associations of persons having a community of interest who pool their savings to make loans to their own members. Credit unions were established in Europe many years before their appearance in the United States, but the European variety was designed to make funds available for productive rather than for consumption purposes. The first American credit union was that established by Alphonse Desjardins in Manchester, New Hampshire, in 1909. In the same year, largely through Desjardin's influence, the legislature of Massachusetts passed a law authorizing the organization of credit unions. No great progress was made, however, until the credit union cause was espoused by Edward A. Filene, the distinguished Boston merchant. Mr. Filene's philanthropic foundation, the Twentieth Century Fund, established the Credit Union National Extension Bureau both to promote the adoption of enabling legislation by the various states and to aid directly in the formation of credit unions. By the fall of 1945, all the states except Delaware, South Dakota, and Wyoming had enacted permissive legislation.¹⁸ Congress, in 1934,

¹⁸ *Monthly Labor Review*, October, 1945, p. 732.

enacted the Federal Credit Union Act to permit the establishment of unions under federal auspices.

According to reports of the federal Bureau of Labor Statistics, the six-year period from the beginning of 1936 to the end of 1941 was one of phenomenal growth for the credit union movement. In that period occurred a net increase of more than five thousand in the number of unions, a tripling of membership and volume of business, and a quadrupling of the face value of the assets owned by credit unions. In 1942 and 1943, a rapid contraction in credit union activity took place, but an upturn in membership and volume of loans was reported in 1944. Statistics for 1944 are summarized in Table 48.

TABLE 48
CREDIT UNIONS IN 1944

	<i>All unions</i>	<i>State unions</i>	<i>Federal unions</i>
Number of chartered unions.....	9,099	5,051	4,048
Number of unions reporting.....	8,702	4,907	3,795
Membership	3,027,694	1,723,893	1,303,801
Number of loans made during year...	1,613,632	949,018	664,614
Amount of loans made.....	\$212,305,479	\$133,971,582	\$78,333,897
Outstanding loans end of year....	\$121,005,395	\$ 86,601,928	\$34,403,467

Source: *Monthly Labor Review*, October, 1945, p. 736.

ORGANIZATION OF CREDIT UNIONS

Credit unions are successfully operated, on the whole, only when strong bonds of mutual interest hold the members together, and, indeed, the federal government and most of the state governments require such a community of interest when granting charters. The employees of a small manufacturing company, the members of a particular office force, the members of a local chapter of a fraternal society, the constituents of a labor union "local"—any group of this kind should be sufficiently cohesive to carry on the operations of a credit union successfully. A minimum of fifty members is required for a federal charter, and similar minimums are stipulated in most of the state laws.

Each member of a credit union must be the owner of at least one share of stock which is generally of five or ten dollars par value. The stock may be purchased by installment payments. Additional shares may be subscribed, although regardless of the number of shares he owns, each member has but one vote in the election of officers and in the determination of policies. Other funds for loans are derived from the small entrance fees which members must pay, from the receipt of savings deposits, from occasional loans negotiated at the commercial banks or other financial institutions, and from the accumulated earnings of the union which are not paid out as dividends. The federal law permits a union to borrow in an amount not in excess of 50 per cent of its capital and surplus, but borrowing is rarely necessary.

Although the members of a credit union choose a president and a vice-president, the most active officer is the treasurer, who is also the general manager. He receives loan applications from members and acts as the custodian of the union's funds. Sometimes he is paid a small salary for his services. The federal law also calls for a board of directors of not less than five members, a credit committee of three or more members to pass upon loan applications, and an auditing committee of three members.

LOANS TO MEMBERS

Credit unions are usually permitted to make loans only to their own members, and the loans may be secured or unsecured according to the regulations of law and the provisions of the bylaws of each union. The Federal Credit Union Act permits federal credit unions to make unsecured loans up to \$300, but loans in excess of \$500 must be secured. Security usually takes the form of signatures of comakers, although chattel and real mortgages are frequently accepted. The borrower's shares in the credit union are almost invariably pledged as additional security. The federal law permits a federal union to lend to a single borrower a maximum of \$200 or an amount equal to 10 per cent of the union's capital and surplus, whichever amount is larger.

The federal law and most of the state laws place the maximum permitted rate of interest on credit union loans at 1 per cent per month on the unpaid balance. Many credit unions actually charge less than that. At all events, the true cost of borrowing is below the quoted rate, since the member-borrowers are entitled to a return in the form of dividends. All earnings in excess of the current operating expenses are available for dividends, as credit unions are not required to accumulate a surplus. The federal law, however, limits the annual dividend to 6 per cent of the par value of the outstanding stock, and most of the state laws have similar limitations.

Chapter 36

BANKING INSTITUTIONS FOR THE SAVER

Functions and Types

FUNCTIONS OF SAVINGS INSTITUTIONS

The flow of savings into investment channels is one of the essential processes of a modern economic system, for abundant investments are constantly required to replace depreciating capital equipment as well as to provide new equipment and materials for the expansion of industry. To the extent, therefore, that savings institutions participate in accumulating funds for investment they make an important contribution to productive activity.

The operations of savings institutions are beneficial both to the individual saver and to society in general. The saver is benefited (1) by having his savings safeguarded, (2) by being enabled indirectly to participate in a diversified list of investments, and (3) by receiving in the form of interest or dividends a return which increases his future purchasing power. Many people of small means would be more or less permanently excluded from enjoying a return upon their savings were it not for the presence of savings institutions. It may require many years for some individuals to accumulate enough funds to buy a bond or a mortgage, and it would be virtually impossible for them to diversify their investments if acting independently. Most people of small means as well as many of greater wealth, moreover, lack the training and experience necessary to employ their savings intelligently in direct production or to choose investment securities wisely.

Savings institutions benefit society as a whole (1) in accumulating and making available for productive purposes the small savings of numerous individuals which would otherwise lie idle, and (2) in encouraging further savings by the payment of interest and dividends to savers.

TYPES OF SAVINGS INSTITUTIONS

Many varieties of institutions serve as intermediaries between savers and the users of savings in productive operations. Indeed, a complete list of intermediaries would include almost all types of financial institutions as well as some others not usually classified as financial. In a broad sense, any institution engaged in gathering savings to pass on to other users may be

classified as a "savings institution"; in this sense, the classification would cover holding companies which sell their own securities to the public to obtain funds with which to invest in subsidiary companies, and investment trusts which sell their own securities to acquire funds for the purpose of investing in a diversified list of securities of operating companies. For the purpose of the present chapter, however, we shall find it advantageous to think of savings institutions as those which accumulate savings *by receiving deposits*, rather than by selling stocks, bonds, investment certificates, shares, and similar "equities" and obligations. Hence our discussion will be confined to such deposit-receiving institutions as the mutual savings banks, the Postal Savings System, and the savings departments of commercial banks. Although some industrial banks, credit unions, and savings and loan associations also qualify as deposit-receiving institutions, their savings function tends to be overshadowed by other more important functions, so that they are better treated in other chapters.

Our discussion must also exclude life insurance companies, although they are among the most important accumulators of savings in operation in the country. Virtually all types of policies sold by life insurance companies, except the so-called term contracts, provide for the establishment of a reserve far beyond what is needed for the payment of benefits upon the death or injury of the insured. That portion of the reserve designated as the "cash surrender value" of the outstanding policies represents the savings of the policyholders, and, as such, it is available to them upon the surrender of the policies. However that may be, the operations of life insurance companies are beyond the scope of this chapter both because they are not deposit-receiving institutions, and because the savings function is subordinate to the major function of life insurance companies which, of course, is the protection of policyholders and their dependents upon the occurrence of certain events such as death, sickness, and injury.

Mutual Savings Banks

Mutual savings banks were originally established for the purpose of promoting thrift among the poorer classes of the population. They are distinguished from other kinds of savings institutions, as the term *mutual* implies, in that there are no stockholders, and the assets and earnings, therefore, belong collectively to the depositors. They are established and operate under special legislation rather than under the general banking codes which apply to commercial banks.

Mutual savings banks were first organized as "charitable" enterprises. Philanthropists, moved by the sad lot of the poor, provided funds for the launching and operation of such institutions, and often served without compensation in managing their affairs. The poor were encouraged to deposit their savings, no matter how small, for the inevitable "rainy day," and the

collected funds were invested in safe securities to provide a return in the form of interest or dividends which otherwise would not have been available to the small saver. Such institutional names as the "Dime Savings Bank" indicate the appeal to the very poor.

The first mutual savings bank was established in Ruthwell, Scotland, in 1810 as the "Parish Bank" of the Reverend Henry Duncan. The idea spread quickly and many other such institutions began to spring up in all parts of Great Britain. In fact, because of the malpractices of some of them, Parliament was obliged, as early as 1817, to pass legislation to bring them under regulation. Two mutual savings banks were established in the United States in 1816—the Savings Fund Society of Philadelphia, and the Provident Institution for Savings of Boston. The principle of mutual savings was even more popular in the Eastern states than in Great Britain, and many additional institutions were soon opened. But mutual savings banking never made much progress outside the New England and Middle Atlantic areas. On December 31, 1945, as Table 49 shows, 515 of the 542 mutual savings banks then in operation were located in those states, with a heavy concentration in Massachusetts, New York, and Connecticut.

TABLE 49
NUMBER AND DISTRIBUTION OF MUTUAL SAVINGS BANKS,
DECEMBER 31, 1945

<i>Location</i>	<i>Number</i>
United States—total.....	542
Massachusetts.....	190
New York.....	131
Connecticut.....	72
New Hampshire.....	42
Maine.....	32
New Jersey.....	24
Maryland.....	10
Rhode Island.....	9
Vermont.....	8
Pennsylvania.....	7
Indiana.....	4
Wisconsin.....	4
Ohio.....	3
Delaware.....	2
Washington.....	2
Minnesota.....	1
Oregon.....	1

Source: Federal Reserve Bulletin, June, 1946, p. 672.

Although mutual savings banks, at the present time, are managed not as "charitable" organizations but as ordinary business enterprises, they are still subject to strict regulations imposed by state legislatures. Such regulations, though often criticized as being too restrictive, have promoted a policy of conservatism in the management of the banks which has gained for many of them a reputation of great financial strength.

MANAGEMENT

A mutual savings bank, although owned by the depositors, is not managed by them or by their representatives. Management is vested in a self-perpetuating board of trustees, originally selected by the organizers of the bank. A trustee holds office until he dies or voluntarily resigns or until he is removed by the vote of the other trustees; vacancies are filled by the vote of the remaining trustees.

Service as a trustee of a mutual savings bank is still often looked upon as a philanthropic activity, although there may be many indirect advantages in such service. Lawyers, investment bankers, commercial bankers, and others prize positions as trustees because they may provide a lucrative source of business. The lawyers may be employed to search titles when the bank grants mortgage loans; the investment bankers may sell to the mutual savings bank securities which they underwrite; and the commercial bankers may receive on deposit its cash reserves.

The trustees receive no salaries or other direct compensation; indeed, they usually do not receive fees for attending board meetings as is customary with the boards of directors of commercial banks. In view of their gratuitous service, the trustees are liable to the depositors only for violations of the banking laws and for gross negligence in the performance of their duties.

The detailed work of operating a mutual savings bank is carried on by hired officers and employees. Handsome salaries are often paid to the major officers, and some of the trustees may desire such jobs for themselves. Every mutual savings bank has a president, a vice-president, and a secretary-treasurer, and the larger institutions may have additional vice-presidents and other officers. In the smaller institutions, the chief work of an executive character usually falls to the secretary-treasurer.

DEPOSITORS

The maximum amount which any one person may deposit in a single mutual savings bank is usually prescribed by law; in New York it is \$7,500, and in Massachusetts, \$8,000. Of course, such a restriction does not forbid the opening of accounts in the names of different members of a family at the same institution, or in the same name at different mutual savings banks. The reasons for the limitation are twofold: (1) the mutual savings banks are supposed to garner only the true savings of the poor and of people of moderate means, and not the temporary surplus funds of the wealthy and of profit-seeking corporations; and (2) the investment policy of the banks usually calls for heavy investment in long-term securities, and the withdrawal of many large accounts might seriously deplete the reserves. Deposits are subject to notice of withdrawal of varying periods of time, depending upon the amount wanted, but notice requirements are generally waived. Withdrawals are permitted only upon the presentation of the pass-

book, which represents the contract that exists between the bank and the depositor.

Though the depositors have full claim upon the earnings of the bank, there being no stockholders, the rate of interest or "dividends" paid to them is usually not larger than that paid by other types of savings institutions. One reason for this is that the state legislatures strictly limit the types of investments which may be purchased by mutual savings banks, and as a consequence the yield of such investments is quite low; and a second reason is that it is the policy of mutual savings banks to build up substantial surplus accounts. A mutual savings bank, therefore, usually plans to pay a uniform rate of interest semiannually, and any additional earnings are turned into the surplus account. If in any semiannual period the earnings are insufficient to pay the usual rate of interest, the surplus may be tapped to make up the deficiency. In some states, when the surplus account has reached a stipulated percentage of the deposits, additional interest-dividends must be paid, so that a policy of extreme conservatism may be avoided. On the other hand, state laws which limit the interest payable on savings deposits of commercial banks are usually applied also to mutual savings banks in order that competition may be equalized.

According to a recent survey of the National Association of Mutual Savings Banks, the average dividend rate among mutuals in effect on July 1, 1946, was 1.78 per cent. This compared with an average rate of 1.82 per cent a year earlier. A majority of mutuals, the survey showed, had a rate of 2 per cent in effect in 1946, but a sizable minority had rates running as low as 1 per cent. Only one bank was paying 3 per cent, the highest rate reported.¹

INVESTMENTS OF MUTUAL SAVINGS BANKS

"Legal Lists."—In most states, the mutual savings banks are permitted to invest only in those securities and to make those loans which are included in the "legal list" compiled by the state legislature or by a designated state administrative agency. The legal lists ordinarily permit the following types of investments: securities of the United States government and those guaranteed by it; bonds of the state in which the bank is incorporated, and bonds of its political subdivisions, such as cities and school districts; bonds of other states and their political subdivisions which have not defaulted upon any of their outstanding obligations for a stipulated period of years; certain types of securities, such as first-mortgage bonds, equipment trust certificates, and collateral trust bonds, issued by railroad companies which operate a certain track mileage, which have a stipulated amount of annual revenue, and which have earned their fixed charges a given number of times annually over a period of years; and the securities of public-utility operating companies which are subject to similar provisos. The purchase of mortgages

¹ *The Month's Work*, August, 1946, p. 4.

and the granting of loans upon the security of mortgaged property are also permitted. In addition, mutual savings banks are generally permitted to buy bankers' acceptances and bills of exchange such as would be eligible for rediscount with the federal reserve banks.

Besides lending upon the security of pledged real estate, mutual savings banks are permitted to make loans of a few other types. They are allowed to make loans upon the security of mutual savings bank passbooks, as well as upon the security of any type of bond or mortgage in which they may invest directly, but loans of these types are usually limited to ninety days.

The limitations upon the investment and lending policies of mutual savings banks are sometimes criticized on the ground that they are destructive of initiative, and many officers of mutual savings banks favor a broadening of their powers. In New York, for example, the mutual savings banks of late have been anxious to obtain from the state legislature the authority to grant small consumption loans. Their customary dealings with people of small means, and their existing facilities and personnel, they claim, would make possible the absorption of new business of this kind with relatively little additional cost.

Modification of Investment Limitations.—During the critical years of the early 1930's, many state legislatures found it difficult to keep their legal lists adequately supplied with securities which satisfied the standards previously established. The decline in the earnings of railroad companies in particular threatened to remove a substantial proportion of securities previously listed as acceptable. A modification of requirements therefore had to be granted, and certain types of securities formerly excluded were added to the legal lists. In 1938, the legislature of the state of New York gave to the State Banking Board the authority to amend the legal list in keeping with changes in the investment market. Upon the application of twenty or more mutual savings banks or of the Savings Bank Trust Company—which is a commercial bank owned by the New York mutuals—the State Banking Board may permit investment in corporate securities which were formerly excluded as ineligible. Likewise, the board may cancel any authorization previously issued.

Investment Policy.—Mutual savings banks have traditionally invested the greater part of their resources in real-estate mortgages, because interest rates on mortgages have been generally far higher than those carried on the securities of governments, railroads, and public utilities found in the legal lists. But the banks were embarrassed by their heavy holdings of mortgages during the period of the banking crisis of the early 1930's. Previous to that time, because of the nature of their deposits, mutual savings bankers had not been particularly concerned with the liquidity or marketability of their security holdings. Indeed, legislatures have not required mutual savings banks to maintain any designated cash reserves, and their size has thus been left to the discretion of the individual banks. But the heavy withdrawals of

deposits during the critical period have convinced many mutual savings bankers that they, too, must have regard to the liquidity and marketability of the assets in their portfolios. As a result, there has taken place in recent years a sizable shifting of investment funds from mortgages into United States government securities—a shifting which got under way well before the exigencies of the Treasury's wartime financial problems demanded the heavy purchase of federal securities by all financial institutions. The data of Table 50 indicate the outstanding importance of federal obligations and mortgage loans in the portfolios of mutuals.

TABLE 50
LOANS AND INVESTMENTS OF 534 MUTUAL SAVINGS BANKS,
DECEMBER 31, 1945

(Dollar amounts in millions)

Type	Amount	Per cent of total
Loans on real estate.....	\$ 4,208	26.01
All other loans.....	64	.40
U. S. government direct obligations	10,659	65.89
U. S. government guaranteed obligations.	3	.02
State and municipal obligations.	93	.57
Other bonds, notes, and debentures.....	984	6.08
Corporate stocks.....	166	1.03
Totals.....	\$16,177	100.00

Source: Derived from *Treasury Bulletin*, July, 1946, p. A-17.

COOPERATION AMONG MUTUAL SAVINGS BANKS

Membership in the Federal Reserve System.—Until 1933, the mutual savings banks were not eligible for membership in the Federal Reserve System because of the requirement that member banks must purchase federal reserve bank stock in an amount determined by their own capital and surplus. The mutuals, of course, had no capital stock on the basis of which to measure the amount of an investment in federal reserve bank stock. But the Banking Act of June 16, 1933, provided for the admission of mutuals by subscription to the stock of the federal reserve banks of their respective districts in an amount equal to .6 per cent of their deposits. The law stipulates that stock ownership is to be adjusted semiannually according to changes in the volume of deposits. Only one half of the stock subscription is payable immediately, the remainder being subject to the call of the Board of Governors of the Federal Reserve System. Where state law permits no stock ownership, a mutual savings bank may join the Federal Reserve System by making the required capital contribution as a deposit with the reserve bank. To be eligible, furthermore, a mutual savings bank must have undivided profits and surplus equal to the capital which would

be required of a national bank located in the same city. Finally, the mutual savings bank must keep a reserve with the district federal reserve bank equal to that required for the savings deposits of commercial banks.

Although the National Association of Mutual Savings Banks had advocated the admission of mutuals, the latter showed little interest in membership after the privilege had been afforded. As late as the fall of 1946, only three mutual savings banks had been admitted to membership—two located in Wisconsin and one in Indiana. Most officers of mutual savings banks seem to feel that they would have few occasions to use the facilities of the Federal Reserve System. In emergencies, however, they might find it highly advantageous to be able to borrow from the federal reserve banks for periods up to ninety days on the security of United States government obligations and for periods up to four months on other assets.

Other Cooperative Facilities.—In 1932, the mutual savings banks were made eligible for membership in the newly established Federal Home Loan Bank System. Though membership would give them the opportunity to borrow from the federal home loan banks of their respective districts, as well as to rediscount with them mortgages on residential property, they have been slow to take advantage of the privilege. Only twenty-five mutuals were members of the system on June 30, 1946.

Some advantages of "central banking" have been provided by the mutual savings banks of the state of New York on a self-help basis. In 1933, most of the mutuals of that state cooperated in establishing two agencies, the Savings Bank Trust Company and the Institutional Securities Corporation. The Savings Bank Trust Company receives deposits from the mutuals, makes loans to them, provides money-order facilities, assists with the purchase and sale of securities, acts as custodian of securities, and disseminates investment advice. The Institutional Securities Corporation was designed primarily as a rediscount agency for mortgages held by New York mutuals, but, of late, it has expanded its facilities to enable New York mutuals to participate in out-of-state mortgage loans. With respect to the latter operation, the Institutional Securities Corporation buys out-of-state mortgages insured by the Federal Housing Administration and then arranges for the participation of the mutuals in these investments by the sale of its own bonds to them.

Insurance of Deposits.—When the Federal Deposit Insurance Corporation was established by the Banking Act of 1933, the mutual savings banks of the country were invited to insure their deposits with it. As a matter of fact, of the 577 mutuals then in operation, 214 accepted the temporary plan of deposit insurance. They objected, however, that the size of the insurance assessment or "premium" was much too high for them in view of the extremely small losses suffered by their depositors since the Civil War. Although 14 mutual savings banks were suspended during the banking crisis, and the suspension of several others was prevented only by mergers,

interbank loans, and loans from the Reconstruction Finance Corporation, the mutuals have had a noteworthy record of safety.

Congress recognized the validity of their plea by providing, in the act of July 16, 1934, for an insurance fund in the FDIC separate from that maintained for the commercial banks. In 1935, however, when the permanent plan of insurance went into effect, the two funds were merged, and many of the mutual savings banks withdrew. That mutuals might have the benefits of deposit insurance, while avoiding the alleged discrimination of the FDIC system, independent programs of insurance were adopted in 1933 and 1934 in New York, Massachusetts, Connecticut, New Hampshire, and Maine. The New York program, however, was discontinued in 1943, and all the mutuals of that state subsequently joined or rejoined the FDIC.

At the end of June, 1946, 191 mutuals having deposits of \$10,979,000,000 were insured by the FDIC, but 350 banks with estimated deposits of \$5,350,000,000 were still outside the federal insurance system.²

The Postal Savings System

The Postal Savings System was established by an act of Congress of June 25, 1910. Its creation had been advocated for many decades, but chiefly because of the opposition of the banking fraternity nothing could be accomplished until the numerous bank suspensions incident to the panic of 1907 somewhat undermined the bankers' prestige. Those who advocated the establishment of savings facilities under the auspices of the federal government argued that the system would provide savings depositaries in those communities which lacked banks, that it would encourage habits of thrift among those who had no trust in banks, that it would make available for productive uses the private hoards of those savers who refused to deal with the banks, and that it would prevent the sending of funds abroad by immigrants for deposit in foreign public banks.

The familiarity of our immigrant population with public savings banks operated by municipalities and by post office departments in their home countries, and their skepticism respecting the safety of the banks, a skepticism which was hardly to be condemned as ill-founded—these were cited as sufficient reasons in themselves for the establishment of the Postal Savings System. The chief argument in opposition was that the federal government would be competing with private enterprise. The antagonistic positions were to a degree reconciled by provisions of the legislation of 1910 which authorized the redeposit of most of the postal savings deposits with the banks.

IMPORTANCE OF THE SYSTEM

In view of the total savings deposits held by all savings institutions in the United States, one may say that the Postal Savings System did not gain

² *Federal Reserve Bulletin*, September, 1946, p. 1035.

a position of significance until the banking collapse of the early 1930's led many people to transfer their savings from banks to the post offices. Even then, the Postal Savings System remained relatively unimportant in comparison with the mutual savings banks and the savings departments of commercial banks. The most active year before 1930 was the fiscal year ending on June 30, 1919, when deposits totaled \$167,000,000, and the depositors numbered 566,000. A decline in the amount of deposits and in the number of depositors took place during the 1920's, but, beginning with 1930, a rapid expansion of the use of the Postal Savings System developed.

With the establishment of federal deposit insurance, many people believed that the Postal Savings System would shrink in importance and thereby indicate that its usefulness was a thing of the past. Despite such views, however, expansion has continued to the present time, as Table 51 indicates.

TABLE 51

GROWTH OF THE POSTAL SAVINGS SYSTEM, SELECTED YEARS, 1911-1945
(*Depositors' balances in thousands of dollars*)

June 30	No. of depositors	Depositors' balances	Average balance per depositor
1911	11,918	\$ 677	56.82
1915	525,414	65,685	125.02
1920	508,508	157,276	309.29
1923	417,902	131,671	315.08
1926	399,305	134,179	336.03
1929	416,584	153,645	368.82
1931	770,859	347,417	450.69
1933	2,342,133	1,187,186	506.88
1935	2,598,391	1,204,863	463.69
1937	2,791,371	1,267,674	454.14
1939	2,767,417	1,262,292	456.13
1940	2,816,408	1,293,409	459.24
1941	2,882,886	1,304,153	452.38
1942	2,812,806	1,315,523	467.69
1943	3,064,054	1,577,526	514.85
1944	3,493,079	2,034,137	582.33
1945	3,921,937	2,659,575	678.13

Source: Annual Reports of the Postmaster General.

MANAGEMENT

The work of supervising the operations of the Postal Savings System is divided between the Postmaster General and a board of trustees composed of that official, the Attorney General, and the Secretary of the Treasury. The Postmaster General designates the post offices which are to function as depositaries, he supervises the routine detail of accepting and handling deposits, and he directs the work of the central administrative office in Washington.

The board of trustees, in turn, is responsible for the management and investment of the postal savings funds after they leave the hands of the postmasters. The third assistant postmaster general acts as the agent of the board of trustees in selecting banks in which postal savings funds may be redeposited, in requiring security from such banks, in making deposits and withdrawals, and in selling the pledged securities if the depository banks are unable to make repayment. He also takes care of the examination of the postal savings accounts of the various postmasters. The board of trustees makes an annual report to Congress summarizing the activities of the Postal Savings System.

DEPOSITS

Anyone who is ten years of age or older may open a single account with a post office with an initial deposit as low as one dollar. Only deposits of round dollar amounts are accepted. Instead of employing passbooks, the Postal Savings System issues certificates in denominations from one dollar to \$500 for each deposit made. Such certificates are neither transferable nor negotiable. The maximum deposit of any one individual is placed at \$2,500.

Before 1935 the Postal Savings System paid interest only on deposits that remained with it for at least a year, but since then interest has been payable on accounts left with the post offices for three months. The Banking Act of 1935 forbids the post offices to pay interest in excess of that which, according to the regulations of the Board of Governors, may be paid by near-by member banks of the Federal Reserve System to their own savings depositors; but the limitation thus far has been of little importance, since the lowest rate set by the Board of Governors has been $2\frac{1}{2}$ per cent, while the post office rate is 2 per cent.

A depositor in the Postal Savings System is permitted to withdraw any part of his deposit without giving advance notice. The withdrawal may be made only at the post office where the account is maintained. Accounts, however, may be transferred from one post office to another without loss of interest for the convenience of those depositors who change their residence.

USE OF FUNDS

The postal savings legislation requires the board of trustees to maintain with the Treasurer of the United States a redemption or safety fund amounting to 5 per cent of the total deposits. The remaining 95 per cent may be redeposited with banking institutions or invested in direct or guaranteed obligations of the United States government. Investment in government securities is mandatory if the President decides that the public interest so requires, or if local banks refuse to accept postal savings funds on deposit.

In selecting banks as depositories, the board of trustees of the Postal Savings System must give preference to member banks of the Federal Re-

serve System. Any bank selected must provide security for the deposits and pay a rate of interest in excess of that paid by the post office to its depositors. Security for redeposits of less than \$5,000 is simply provided by insurance with the FDIC, but redeposits in excess of that amount must be safeguarded by the pledge of treasury obligations. Total redeposits with any banking institution must not exceed the amount of its capital plus one half of its surplus.

In recent years, the banks have shown little interest in accepting the funds of the Postal Savings System as redeposits. The rate of interest required on such deposits, which has been $2\frac{1}{2}$ per cent, is generally in excess of that paid by the banks direct to their own depositors; and, of course, the banks do not have to pledge securities to safeguard their own depositors. As a result, the great part of postal savings funds have been invested in government securities. Thus, at the end of May, 1946, of total postal savings deposits of \$3,091,000,000, only \$5,000,000 were redeposited with banks.³

The Savings Departments of Commercial Banks

The most important depositaries of savings which operate in the United States today are the savings departments of commercial banks, although they gained their position of pre-eminence only in the present century. In one respect, commercial banks may be said to have adopted the savings business by indirection—as a means of meeting the competition of other kinds of financial institutions. Before 1900, most of the commercial banks did not receive time deposits. Some state-chartered commercial banks had been authorized to accept such deposits, but, as the National Bank Act did not specifically grant this power, the officers of most of the national banks felt that it would be illegal for them to accept time deposits.

The chief competitors of the mutual savings banks before 1900 were the stock savings banks and the trust companies. The former were organized chiefly in the South and the West as specialized savings institutions, but some of them soon enlarged the scope of their business to accept demand deposits. Further competition was offered by the trust companies, which began to assume a position of prominence in the 1870's, and which very early found it both profitable and convenient to accept demand and time deposits. Thus the commercial banks, in self-defense, were anxious to make available to their customers services, including time accounts, at least equal to those of the newer competitive institutions.

Some national banks accepted savings deposits without specific authorization before 1900, and others established affiliated state-chartered institutions for the purpose of accepting such deposits. In 1903, the Comptroller of the Currency encouraged the national banks to accept savings deposits

³ *Federal Reserve Bulletin*, September, 1946, p. 1033.

by his ruling that "there does not appear to be anything in the National Bank Act which authorizes or prohibits the operation of a savings department by a national bank." Thus encouraged, about 45 per cent of the national banks had opened savings departments by 1913, when the Federal Reserve Act, by fixing different reserve requirements for demand and time accounts, approved by implication the acceptance of time deposits by all member banks. The authority to maintain savings departments was finally specifically conferred upon national banks by the McFadden Act of 1927. In the meantime, state legislatures had progressively expanded the authority of state-chartered commercial banks to accept time deposits.

TIME VS. SAVINGS DEPOSITS

Although the savings departments of commercial banks are described as the most important savings institutions which operate in the United States, it is to be remembered that many of the time accounts which commercial banks hold are not "savings" or "thrift" deposits in the strict sense of the word. In federal reserve practice, a savings deposit is defined as one credited to an individual or to a nonprofit organization, evidenced by a passbook, subject to notice of withdrawal of not less than thirty days, and payable only to the depositor in person or upon presentation of the passbook. Because the banks may and do waive the notice requirement, however, many individuals have come to look upon their "savings" accounts merely as current cash holdings to be withdrawn and replenished as freely as demand deposit accounts.

Other time accounts held by commercial banks include those arising from the issuance of certificates of deposit to individuals and corporations, the "open accounts" of individuals, partnerships, corporations, governmental bodies, and other banks, and Christmas savings and other "club" accounts. The discontinuance of interest payments on demand deposits beginning in 1933, as well as the levying of miscellaneous charges on the use of demand deposit accounts, has led many corporations and governmental bodies to place large portions of their cash balances, unneeded for current purposes, in time accounts. They are thus able to enjoy an interest return.

INTEREST REGULATIONS

The outstanding governmental regulations which apply to the operations of the savings departments of commercial banks are those which limit the payment of interest upon time accounts. The Board of Governors of the Federal Reserve System has the authority to regulate the interest payments of member banks, the Federal Deposit Insurance Corporation has similar authority respecting nonmember insured banks, and some of the state banking authorities have been empowered to regulate the interest paid by the banks which come within their respective jurisdictions. The max-

imum permitted rates which have been established from time to time by the Board of Governors appear in Table 52.

TABLE 52

MAXIMUM INTEREST PAYABLE ON TIME DEPOSITS BY MEMBER BANKS

(Per cent per annum)

Type of deposits	Nov. 1, 1933— Jan. 31, 1935	Feb. 1, 1935— Dec. 31, 1935	Effective Jan. 1, 1936
Savings deposits.....	3	2½	2½
Postal savings deposits.....	3	2½	2½
Other deposits payable			
In 6 months or more.....	3	2½	2½
In 90 days to 6 months.....	3	2½	2
In less than 90 days.....	3	2½	1

Source: Federal Reserve Bulletin.

The purpose of interest regulations is to limit the operating expenses of the banks so that they may be encouraged to observe conservative policies in lending and investing. In the period before 1930, many banks made speculative loans and bought securities of poor quality in order to earn a return sufficiently large to enable them to pay 4 or 5 per cent on time deposits and at the same time to have a reasonable margin of profit.

OTHER REGULATIONS

Only in rare instances are the operations of the savings departments of commercial banks subject to other special regulations. The general regulations of banking laws and of administrative authorities respecting the making of loans, the purchase of investments, and the keeping of reserves apply indiscriminately to all funds of the banking institutions whether derived from demand deposits or from time deposits—with the exception, of course, that the reserves required for time deposits are smaller than those required for demand accounts.

Thus the commercial banker is generally free to use the funds derived from time deposits for the granting of commercial loans for business purposes, investment loans for the purchase of securities on margin, and consumption loans, and he may use them in buying miscellaneous types of securities. Although separate ledgers are kept for time deposits, this is done as a matter of convenience and not because of legal requirement. And, most importantly, the claim of time depositors against the assets of the bank is quite indistinguishable from the claim of demand depositors; rarely is there a segregation of assets, that is, the assignment of specific groups of assets for the protection of the one class of depositors or the other.

The state of California has gone much further than any other government in providing special safeguards for savings depositors. Commercial

banks which are chartered by that state and which receive savings deposits must virtually divorce the operations of the savings department from the other departments. Such divorcement is carried to the extent of requiring the assignment of a portion of the bank's capital and surplus, as approved by the superintendent of banking, to the savings department. Separate books must be maintained, special regulations must be observed in the investment of savings funds, and the assets of the savings department must not be commingled with those of the other departments. A few other states require the segregation of assets and place restrictions upon the transfer of assets from one department of a bank to another; and a few limit the total volume of time deposits which may be received to a designated ratio of a bank's capital and surplus.

PROTECTION OF TIME DEPOSITORS

The failure of the federal government and of most of the states to require special protection for time depositors in commercial banks has long been the subject of severe criticism. The absence of regulations of this kind, it is said, places time depositors in extreme jeopardy during banking crises, for the banks may require time depositors to give notice of withdrawal, in the meantime permitting the demand depositors to exhaust the more liquid assets of the banks.

Although the establishment of deposit insurance on a nation-wide basis has reduced the significance of the question of special protection for time depositors, it nevertheless remains true that those time depositors who have accounts of more than \$5,000 in a single bank continue in a hazardous position. Hence proposals are still presented for the segregation of assets and for the employment of other safeguards for time deposits, not only for the protection of the depositors but also to equalize competition among the various savings institutions.

Chapter 37

BANKING INSTITUTIONS IN THE CAPITAL MARKET

In the United States, an important group of financial institutions engages in the task of assisting corporations and governmental bodies to raise funds for long-term purposes. The activities of this group of financial institutions are known collectively as *investment banking*. Unlike the commercial banks, institutions engaged in the field of investment banking are not primarily lenders in themselves; rather, they are middlemen who perform the service of gathering funds from lenders or investors and passing them on to borrowers.

The operations of investment banking institutions are said to take place in the *capital market*, as distinct from the "money market" or the market for short-term funds. Like the money market, the capital market may be said to have two divisions—a "personal" division in which borrowers and lenders carry on direct negotiations, and an "open" division in which lenders advance funds to borrowers through the intermediary of middlemen. Within the scope of the "personal" division of the capital market are included such transactions as the direct sale of stock by corporations to their present stockholders, the negotiation of long-term mortgage loans by home builders at savings banks, and the granting by commercial banks of long-term loans to businessmen for the purchase of machinery. Because transactions such as these do not require the services of middlemen, the functions of the investment banking institutions are confined to the "open" division of the capital market.

In carrying on their operations in the "open" capital market, the investment banking institutions undertake to provide corporations and governmental bodies with long-term funds by distributing their stocks, bonds, and other obligations to the investing public. As a group, they also provide facilities for the redistribution of securities, that is, facilities by means of which investors may dispose of securities previously purchased. Included in the group, therefore, are not only the "investment banking houses" themselves, but also brokerage houses and the stock exchanges.

Investment Banking Houses

TYPES OF INVESTMENT BANKING HOUSES

In legal complexion, most investment banking houses are sole proprietorships and partnerships, although many of the larger houses have been incorporated. In recent years, as a matter of fact, a strong trend toward the incorporation of investment banking houses has been apparent.

Depending upon the scope of their operations, investment banking houses may be classified as originators, underwriters, and retailers. These classes are not mutually exclusive, since a single investment house may function in all three capacities. However, some houses—such as Kuhn, Loeb and Company; Morgan, Stanley and Company; Dillon, Read and Company; and Halsey, Stuart and Company—are of outstanding importance in that they take major responsibility in bringing out new issues of securities and in managing syndicates and groups of houses for their distribution to the investing public. These houses, together with many other prominent houses which seldom originate new issues, purchase entire blocks of securities from issuing corporations and governments, and as such are known as underwriters. Finally, many investment banking houses are primarily concerned with the retailing of securities to individual and institutional investors, although, again, originators and underwriters also participate in retail distribution.

The originators and principal underwriters maintain their offices in New York and other leading cities. Many of them operate branch offices in other cities. The smaller distributors or retail investment houses, on the other hand, are to be found not only in the principal cities but also in numerous smaller communities throughout the country.

PROCEDURE OF INVESTMENT BANKING HOUSES

Underwriting.—The prime function of investment banking houses is to bring new issues of securities into the capital market. In performing this function, the investment houses may act as agents for the issuing corporations and governments by selling the securities on a commission basis; but the common practice is for some of them to *underwrite* the security issues.

To underwrite a security issue is to guarantee its sale upon such terms that the issuing corporation or government is assured proceeds of a stipulated amount. If a corporation bond issue of \$10,000,000 is underwritten "at 98," the investment bankers guarantee that the corporation will receive \$9,800,000 as proceeds. Underwriting is usually accomplished by the purchase of the entire security issue by the investment banking houses from the issuer at a designated price. It is their responsibility to dispose of the issue as best they can. If it is impossible to find investors who are willing to pay the guaranteed price or more, the investment bankers rather than the issuer must bear the loss.

Because of the ever-present possibility that an offering of a particular class of securities will not bring a favorable response from the investing public, the investment bankers must obviously exercise great care in agreeing to underwrite.

Functions of the Originator.—A single investment banking house ordinarily undertakes to bring out a new issue of corporation securities, and, in so doing, it is known as the originator of the issue. If the issue is a small one, the single house may take the sole responsibility for underwriting and for the disposal of the issue in the capital market; but for large issues, the originator almost invariably calls upon other investment banking houses to join with it in forming an underwriting group or syndicate. This is done because an investment banking house depends for its profits upon rapid turnover of securities, and it is unwilling to keep too large a proportion of its own capital tied up in a single issue.

The originator carries on all the preliminary negotiations with the issuing corporation, and these are likely to require a great deal of time and much detailed analysis. A corporation which proposes to put out a new issue of stocks or bonds must reveal to the originator a great volume of information as to its origin and history, its corporate powers, the nature of its product, its capital structure, its earning capacity, its costs of operation, its experience with previous capital issues, and its plans for the use of the new capital to be raised.

The originator ordinarily requires the presentation of detailed reports prepared by competent and unbiased experts, including an engineering report covering the condition of the corporation's buildings, machinery, and equipment, as well as the composition of its product; an accounting report presenting statements of assets and liabilities and of profit and loss, together with an analysis of the surplus account; and an attorneys' report giving adequate assurance as to the legality of the issue, in consideration of the issuer's corporate powers and the governing legislation. With respect to bond issues to be sold in interstate commerce, an indenture—that is, a contract between the issuing corporation and a trustee who is appointed to protect the interests of the bondholders—must be prepared in accordance with the requirements of the Trust Indenture Act of 1939.

If all the preliminary reports and disclosures are satisfactory to the originator, and if there are reasonable prospects that the public will "take" the new securities, the originator and the issuer are prepared to work out the final details. It is necessary to determine the price at which the securities will be offered to the public, the price to be paid by the underwriters, the nominal rate of interest or dividends, provisions for retirement, callability features, sinking-fund requirements, privileges of conversion, and so on. When all these features have been agreed upon, the underwriting contract is signed.

Issues of Government Securities.—Rarely do governmental bodies enter

into detailed preliminary negotiations with investment banking houses in arranging for the issue of new securities. Instead, they decide individually upon the characteristics of their issues, make information respecting them generally available to anyone who may be interested, and then call for bids for all or for specific blocks of the issues. With respect to the issues of state and local governments, prominent investment banking houses which usually function as originators often form tentative groups or syndicates to bid for entire issues, and thus several groups of investment houses may actively compete with one another. The offering of government issues for competitive bidding is usually required by state constitutions and statutes.

In recent years, much interest has centered around the possibilities of selling other types of securities on the basis of competitive bidding. The regulations of the Interstate Commerce Commission require the railroads subject to its jurisdiction to offer most varieties of their security issues according to the competitive bidding procedure, and the Securities and Exchange Commission has established a rule which requires the public-utility corporations over which it has regulatory authority to dispose of their issues by calling for bids. While investment bankers do not object to competitive bidding for government issues, most of them decry all attempts to carry the policy into the field of corporate financing. It is their claim that competitive bidding for corporation securities destroys the close working relationship between the bankers and the corporations—a relationship which has been valuable not only to themselves but to the corporations concerned. On the other hand, the chief argument in favor of competitive bidding is that the issuing corporation or governmental body is likely to be able to sell at a better price than if it deals directly with a single originating house.

Underwriting Syndicate.—In undertaking to bring out a large issue of securities, the originator, as we have said, usually calls upon other leading investment banking houses to join it in forming an underwriting group or syndicate. Each house which receives an invitation makes an independent investigation of the proposed issue, although its analysis can scarcely be so comprehensive as that of the originator. Its decision to accept or reject the invitation, therefore, is based not only upon its own investigation but also upon its judgment as to the competence of the originator. Each investment banking house which is invited to participate as an underwriter designates what volume of securities it is willing to buy; nevertheless, the right of the originator to allot the securities to the subscribing houses according to its own discretion, rather than proportionately, is generally recognized. Thus, in the event of an oversubscription, the originator may award one house the full amount of its subscription, while granting another only 50 or 60 per cent of the securities requested. The originator usually underwrites the largest block.

The present-day practice is to hold each underwriting house responsible

only for the securities assigned to it. If one house, for example, is able to sell its entire block at the public offering price, either through its own facilities or through retail houses, it is not asked to share the losses of other houses which are unable to market their allotments.

In joining an underwriting syndicate, an investment banking house must be prepared to make payment to the issuing corporation or government for the securities which it has agreed to underwrite. In other words, payment must be made to the issuer (usually within thirty days) even if the stocks or bonds have not been sold to the public. Some investment houses are able to make advance payments out of their own resources—out of the capital contributions of their proprietors, partners, or stockholders, as the case may be—but many borrow temporarily from the commercial banks, leaving the unissued securities as collateral for their loans. When the securities are sold quickly to the public, on the other hand, the investment bankers may be able to meet their financial obligations to the issuer from the proceeds of the sales without using any of their own funds.

The financial arrangements involved in underwriting may be illustrated as follows. Suppose a corporation is in the process of issuing \$10,000,000 of first-mortgage bonds, and the offering price to the public is set at 99 and accrued interest. If the price to the underwriting syndicate were 96 and accrued interest, the underwriting houses, as a group, would have to make payment of \$9,600,000 and accrued interest to the corporation within a stipulated period. The "spread" between 96 and 99, amounting in total to \$300,000, would represent the gross profit margin of the investment banking houses. Out of the gross profit margin certain expenses would have to be met: the expenses incurred in the operation of the syndicate; a commission or bonus allowed the originating house for its preliminary work and for its management of the syndicate; and a "price concession" which must be granted to the retail houses when they are invited to assist in selling the securities to the general public.

Selling Group.—The participants in an underwriting syndicate ordinarily expect to sell a portion of the securities to their own clients; but, because they recognize the necessity of selling the issue as quickly as possible lest changes in market conditions "freeze" it in their hands, they usually invite the smaller retail houses to join with them in a selling group. It was formerly a common practice to form selling syndicates, so that the retailers, in turn, would guarantee a stipulated price to the underwriters—a price in excess of the original underwriting price but less than the offering price to the public. At the present time, however, retail houses which join a selling group merely undertake to sell a designated block of securities on behalf of the underwriters. If the retail houses are unable to find a market for the securities, they reserve the right to return them to the underwriters; but should they indulge often in such a practice, they would soon find themselves without invitations to join selling groups.

For its services, a retail house is allowed a "price concession"—that is, a discount from the public offering price—which varies from a fraction of a point to several points, depending upon the character of the securities. The price concession does not represent a net profit to the retail house, since it must bear its own expenses of distribution.

Sales are made by underwriters and retail houses at their head and branch offices, through salesmen, and by means of the telephone, the telegraph, and mail. Salesmen visit likely prospects and personally urge them to invest in the wares of the investment houses.

Sometimes institutional investors, such as insurance companies, investment trusts, and savings and commercial banks, receive invitations to join selling groups, although they are interested only in sales to themselves. As members of selling groups, they are entitled to the price concession, so that they are able to buy for their own portfolios at a price below that paid by other investors.

Making the Market.—The work of an underwriting syndicate is not completed with the formation of a selling group; instead, it must remain on the job to see that the securities are properly "digested" by the public. If some of the early buyers of the securities become nervous and offer them in the market at prices below that paid, the investment banking houses will obviously face great difficulty in finding other investors who are willing to pay the original offering price.

Hence the originating house as manager of the underwriting syndicate often leaves in the market an "open order" to buy at a price slightly below the public offering price any of the securities that may be offered for resale. The presence of such a buying order prevents the market value from falling below the offering price by more than a small fraction. But if the market has become weak, the buying order may result in the reacquisition by the underwriting syndicate of a substantial portion of the securities previously sold. As the underwriters face losses in the process of reselling the securities, they penalize the retail houses by canceling the price concession upon such reacquired securities as were originally sold by the retailers.

REGULATION OF INVESTMENT BANKING PRACTICES

The procedures by which security issues are originated, underwritten, and sold have often been perverted for the dishonest gain of unscrupulous groups. As a matter of fact, the dishonest operator in the field of investment banking is probably better situated to prey upon the public than are his fellows in other walks of life, because of the perennial gullibility of certain elements of the population who are always willing to venture their savings upon "get-rich-quick" schemes. Most investment banking houses, it is important to emphasize, have maintained excellent records of fair dealing, but the malpractices of the dishonest operators have at times cast a shadow of suspicion upon the entire investment banking fraternity.

The idea that governments should take special steps to protect the investing public has been slow to take root. Too much emphasis has been placed upon the slogan "Let the buyer beware," and too little upon the principle that the seller should be held accountable for his misdeeds. For too long, legislative bodies have tended to neglect the obvious fact that investors are often at the mercy of "insiders" who are in a position to manipulate corporate charters, security issues, and market prices to suit their own ends. Indeed, it is possible to say that only since the adoption of the federal Securities Act of 1933 have investors enjoyed reasonably adequate protection.

Early Regulations.—Long before specific protective legislation was adopted, it was possible to prosecute dishonest dealers in securities under the common law, that is, the law found in the decisions of judges from earliest times in Anglo-Saxon countries. Thus fraud has always been subject to punishment under the common law—but fraud is difficult to prove in security transactions. To convict a dealer of fraud, the buyer must prove that the dealer made a misrepresentation of fact to him, that the misrepresentation was made knowingly, that the dealer intended that the buyer should act upon the misrepresentation, and that the buyer suffered damages as a result of acting upon it.

The common law also makes possible actions of "rescission," by which a buyer merely has to prove that he purchased because of a misrepresentation of fact. Such an action is taken to require a dealer to return the purchase price to the buyer upon the surrender of the securities by the latter. The dealer, however, may easily escape punishment. An action of rescission, moreover, is available only to the original buyer of securities, and not to subsequent owners.

For many years, the United States criminal code has made it unlawful for security dealers (and for others, of course) to use the mails in promoting "any scheme or artifice to defraud";¹ and under other legislation, the Postmaster General is authorized to stop the delivery of mail and the payment of money orders to anyone who attempts to obtain money or other property "by means of false or fraudulent pretenses, representations or promises."²

Beginning with Kansas in 1911, the state legislatures took steps to protect investors by the adoption of "blue-sky laws" and fraud laws. The "blue-sky laws" generally require the registration of security dealers, or the registration of the securities which are to be sold within the state, or both. Investment banking houses may merely be asked to file certain information regarding their organization, or they may be required to obtain licenses before engaging in the sale of securities. The fraud laws, such as those of New York, New Jersey, and Maryland, obligate investment banking houses

¹ *United States Code*, Title 18, par. 338.

² *United States Code*, Title 39, par. 259 and par. 732.

to publish notices respecting the securities which they plan to sell, and authorize state officials to stop the sale and to institute criminal proceedings if they find the securities to be of a fraudulent character. State legislation, however, has been largely ineffective since it is unable to reach securities delivered to investors from outside the respective states.

Securities Act of 1933.—Recognizing the prevalence of dishonest and undesirable practices in security selling, as well as the shortcomings of state protective legislation, the federal government assumed regulatory jurisdiction over many of the operations of investment banking houses with the passage of the Securities Act of 1933. Regulatory authority was originally assigned to the Federal Trade Commission, but, by an amendment of 1934, a new Securities and Exchange Commission was established as a separate agency.

The SEC is charged with the responsibility of supervising the flotation of new security issues in interstate commerce, and it has been assigned many other duties, some of which are mentioned in the following pages. It is composed of five members who are appointed by the President with the advice and consent of the Senate for five-year terms. The term of one member expires each year. The law provides that not more than three members may be of the same political party. Each commissioner receives an annual salary of \$10,000.

The Securities Act requires corporations and foreign governments to file with the SEC "registration statements" respecting any securities which they plan to sell in interstate commerce or through the mails. In the case of corporate securities, each registration statement must supply the name of the corporation, the state in which it is chartered, the location of its principal business offices, the names and addresses of its directors, principal officers, and underwriters, the nature of its business, and its capitalization. Information respecting the amount of the corporation's securities held by officers, directors, and underwriters must be included, together with the names and addresses of all other persons who own individually 10 per cent or more of any class of stock of the corporation. With regard to the securities to be issued, the registration statement must declare the reasons for their sale, the price at which they are to be offered to the general public, the net proceeds which the corporation will receive, the compensation to be paid to the underwriters, and other expenses involved. In addition, the corporation must file balance sheets and statements of profit and loss certified by independent accountants, together with copies of certain other documents, such as its articles of incorporation, its agreement with the underwriters, and the opinion of its attorneys as to the legality of the issue.

The information required of foreign governments which plan to market securities in the United States is of the same general character as the fore-

going, but it necessarily differs in detail because of the fundamental differences in organization and operations.

In addition to the registration statement, a corporation or foreign government is required to prepare a "prospectus" which is to be made available to anyone who contemplates the purchase of the securities. The prospectus contains information similar to that of the registration statement, although much of it may be condensed, and most of the documents need not be reproduced.

Securities which are exempt from registration are those of domestic governmental bodies, federal, state, and local; issues of nonprofit corporations; those of national and state banks and savings and loan associations; securities of railroads and of other carriers which are subject to the approval of the Interstate Commerce Commission; insurance and annuity contracts; securities sold directly to investors by way of "private offerings"; certificates of trustees in bankruptcy; securities issued in connection with reorganizations under the supervision of the courts; securities issued by corporations direct to their present security holders in exchanges, provided that no commission or other remuneration is involved; issues sold entirely within a state or territory; issues having a face value of \$300,000 or less (at the discretion of the SEC); and instruments, such as notes and drafts, having a maturity not exceeding nine months.

From the time that the registration statement and prospectus are filed, a certain period must elapse before the securities may be sold. The Securities Act originally provided for a "waiting period" of twenty days for domestic securities, and of seven days for those of foreign governments; but an amendment of August 22, 1940, permits the SEC to reduce the waiting period at its discretion. When the waiting period has elapsed, a registration becomes "effective," and the securities may be sold. (For statistics of effective registrations in the period since 1934, see Table 53.) During the waiting period, the issuing corporation or government, with the approval of the SEC, may amend the registration statement and prospectus without extending the effective date; in view of this rule, it is common practice to add information respecting the public offering price just before the effective date.

The waiting period enables the SEC to examine the registration statement and prospectus and to require their amendment if they are found to be incomplete, or, if the proposed securities appear to be of fraudulent character, it allows the SEC time to petition a federal court for an injunction to prevent their sale.

Significance of Registration Statements and Prospectuses.—The registration statement and the prospectus are prepared not only to make information regarding new security issues available to the SEC and to the public, but also to establish a record upon the basis of which criminal and civil penalties may be assessed because of omissions or misstatements of material facts. The directors and officers of a corporation, together with the under-

writers and other persons concerned in the filing of the registration statement and prospectus, may be punished by fine and imprisonment for willful violations of the law, and they are liable in damages to investors if guilty of willfully omitting or misstating material facts.

From the point of view of the investing public, the chief element of protection arises from the fact that an issuing corporation is responsible for all omissions and misstatements of material facts in the registration statement, even though the directors, officers, underwriters, accountants, attorneys, and others may be able to prove that the omissions or misstatements were unintentional. In other words, the corporation cannot escape its liability to investors who have been misled, though its officers and employees may be able to establish their innocence.

TABLE 53
EFFECTIVE REGISTRATIONS UNDER THE SECURITIES ACT, 1934-1945

Year ending June 30	Number of issues	Amount (000 omitted)
1935*	364	\$ 913,130
1936	966	4,835,050
1937	1,266	4,851,465
1938	630	2,104,714
1939	520	2,579,193
1940	443	1,786,538
1941	456	2,610,684
1942	281	2,003,421
1943	189	659,480
1944	301	1,759,780
1945	344	3,224,584

* From September, 1934, to June 30, 1935.

Source: Securities and Exchange Commission, *Annual Reports*.

An investor who believes himself damaged because of omissions or misstatements of material facts in a registration statement or prospectus must bring his suit for damages within one year after discovering them or after he should have discovered them by the exercise of reasonable diligence, and, at the latest, within three years from the date that the registration statement became effective.

The filing of a registration statement and its acceptance by the SEC are not designed to assure the prospective investor that the securities concerned are "good" from the standpoint of investment quality. The purpose of the regulations is to make information available to prospective investors and to prevent fraud in the sale of securities, and nothing more; hence the investor must continue to exercise care in choosing his purchases. The registration statements and prospectuses do supply the facts upon which the investment quality of securities may be judged—facts which, before 1933,

were often difficult or impossible to obtain—but it is still the responsibility of the investor to use the information wisely.

The Stock Exchanges

SERVICES OF STOCK EXCHANGES

Little "new" capital is raised by corporations and governmental bodies through the facilities of the stock exchanges, and, for that reason, the exchanges are often attacked on the ground that they perform no useful economic service. In other words, the exchanges are concerned with transactions in securities which have already found their way into the hands of investors. If, for example, ten thousand shares of the stock of General Motors are sold every day in the year on the New York Stock Exchange, the General Motors Corporation receives no funds as a result of such "activity" in its stock.

But the function of stock exchanges in assisting with the redistribution of securities is important for several reasons. For one thing, many investors would not buy original issues of securities if they knew that a ready market for them did not exist. Stocks and bonds are outstanding for many years, and few buy with the intention of holding them till they are redeemed by the issuers—which, of course, may never take place in the case of stocks. In a word, many people are willing to invest only if they have reasonable assurances that they will be able to convert their investment securities into money whenever they so desire. Again, money may flow into the hands of corporations and governments through the intermediary of the stock market, in so far as investors obtain the funds with which to buy new issues by the sale of securities previously held. Finally, the improved marketability imparted to securities by their listing upon stock exchanges makes them useful in many types of business transactions, notably in the negotiation of short-term loans with commercial banks. The commercial banks are willing to make loans on stock market collateral because they may rely upon the sale of the securities to reimburse themselves in the event of default by the borrowers.

NEW YORK STOCK EXCHANGE

A discussion of the services of stock exchanges necessarily centers around the operations of the New York Stock Exchange, since it accounts for approximately 85 per cent of the monetary volume of security transactions on all exchanges in the United States. The data of Table 54 indicate the huge volume of transactions on the New York Stock Exchange in the period since 1915.

Organization and Management.—The New York Stock Exchange is a voluntary association whose principal function is to provide facilities for the use of its members in buying and selling securities. It has 1,375 members,

each of whom is said to own a "seat" on the exchange. Members may own seats in their individual capacity or as partners in limited or unlimited partnerships; but seats cannot be held by corporations or by their representatives. Only members—and the "alternates" of those members who are occupied with duties as officers of the exchange³—are admitted to the floor for active trading; hence a person who desires access to the floor must buy a seat from a retired member or from the estate of a deceased member, and, in addition, he must meet the approval of the exchange's Committee

TABLE 54
SALES ON THE NEW YORK STOCK EXCHANGE, SELECTED YEARS,
1915-1945

Year	Shares of stock (In millions)	Par value of bonds (In millions of dollars)
1915	173	961
1918	144	2,063
1921	173	3,324
1924	282	3,804
1927	577	3,269
1929	1,125	2,982
1930	810	2,764
1931	577	3,051
1932	425	2,967
1933	655	3,369
1934	324	3,726
1935	382	3,339
1936	496	3,576
1937	409	2,793
1938	297	1,860
1939	262	2,046
1940	208	1,669
1941	171	2,112
1942	126	2,311
1943	279	3,255
1944	263	2,695
1945	378	2,262

Source: *Commercial and Financial Chronicle*.

on Admissions and Board of Governors. The price to be paid for a seat by a new member is determined by direct negotiations between him and the seller. The highest price ever paid for a seat, in a transaction in 1929, was \$625,000, but subsequently seat values fell precipitously, reaching a low of \$17,000 in April, 1942. Thereafter, a substantial recovery in seat values gradually developed, but even the best price realized in the last few years amounted to only a minor fraction of the high price of 1929. In November, 1946, several seats were sold at prices in the vicinity of \$65,000.

The exchange is managed by a Board of Governors of twenty-five mem-

³ An amendment to the constitution of the exchange adopted in January, 1942, provided for the appointment of alternates also for members absent on account of military service or of public service connected with national defense.

bers, of whom twenty-two are chosen in annual elections in which all members of the exchange are free to participate. Of the elective governors, one, the chairman of the board, is chosen for a one-year term, and the remaining twenty-one are named—with seven coming up for election each year—for three-year terms. The chairman must be a member of the exchange; ten other elective governors must be members of the exchange who have their residences and principal places of business in the metropolitan area of New York City; four must be "office partners" of member firms which are engaged in direct dealings with the public, subject to the same requirement as to residence and business location; and seven must be out-of-town members or their "office partners" who are associated in firms engaged in direct dealings with the public.⁴ At least two of the out-of-town governors must be members of the exchange. The three remaining positions on the Board of Governors are assigned to the president of the exchange and to two representatives of the public, all of whom are chosen by the elective governors. The public representatives have one-year terms, and the president serves at the pleasure of the board. The president is the chief executive officer of the exchange, and, as such, he is generally responsible for the execution of policies formulated by the board; he may not hold a seat upon the exchange during his term of office.

The Board of Governors, through the president and certain standing committees, enforces the rules of the exchange; it has the power to fine, to suspend, and even to expel members guilty of violations. The standing committees, consisting of members chosen by the chairman or by the president and approved by the Board of Governors, are vested with responsibility respecting such matters as executive problems, the arbitration of disputes, the admission of new members, floor procedure, the business conduct of member firms, the admission of securities to trading, and public relations.

The exchange is a nonprofit enterprise. Its income is derived from admission fees and annual dues paid by the members, fees for the listing of securities, rentals received for the use of space in its buildings, and dividends received from its subsidiaries, the Stock Clearing Corporation and the New York Quotation Company. The income of the two corporate subsidiaries is derived, respectively, from the services performed for members in the transfer of securities, and from the sale of stock-and-bond price quotations to the press services and to other buyers.

Commission Brokerage.—From the point of view of their importance in the capital market, the most significant members of the New York Stock Exchange are those who engage in *commission brokerage*. It is

⁴ In view of the fact that only one or two partners in a commission brokerage house may own seats on the exchange, other partners are called "office partners" to distinguish them from the seat-owners or "floor partners." "Office partners" are given representation on the Board of Governors because they are vitally affected by all decisions of the board with respect to rules of procedure, conduct of business, admission of securities to the list, and the like.

through the services of commission brokers that individual and institutional investors in all parts of the country are able to buy and sell securities through the exchange. Most of the commission brokers are partners in brokerage houses, and as such they execute on the floor of the exchange the buying and selling orders received from the clients of their respective houses.

Some of the brokerage houses serve only a strictly limited clientele, while others are willing to accept orders to buy and sell from anybody who wants to use their facilities. Many of the latter have elaborate national organizations, including main offices in New York City and branch offices in other principal cities and smaller communities. They execute orders to buy and sell, make investment information and advice available to their clients, and arrange for the borrowing of funds for margin transactions.

There exists no clear line of distinction between brokerage houses and investment banking houses. Many houses which are primarily interested in commission brokerage also participate in underwriting syndicates and selling groups; and many so-called investment banking houses own seats on the exchange for buying and selling both for their own account and for that of their clients.

Other Activities of Members—The activities in which members of the New York Stock Exchange participate, aside from commission brokerage, are usually described as floor brokerage, specialization, floor trading, odd-lot dealing, and bond brokerage. Some members confine their operations to only one of these activities, and others participate in two or more. It is to be mentioned, also, that some members are inactive—although they own seats, they do not appear on the floor of the exchange or use its facilities in any direct way.

Those members who engage in *floor brokerage* have for their function the execution of orders for the commission brokers when the latter have more orders than they can conveniently handle at a given time. Floor brokers are often referred to as “two-dollar brokers”—a designation which originated at a time when two dollars was the customary floor fee for the execution of an order to buy or sell one hundred shares. At the present time, however, the commission paid a floor broker is based upon that received by the commission broker; accordingly, it varies with the market value of the stock bought or sold.

Specialization is a function of outstanding importance, because it is the responsibility of specialists to maintain an “orderly market” in the securities in which they concentrate their trading. As their name implies, specialists deal in only one or in a small group of securities. They trade on their own account, and, in addition, act as “two-dollar brokers” in their specialty for the commission brokers. The commission brokers generally turn over to the specialists all orders to buy and sell which are to be negotiated at some future time, as well as those to be transacted at prices other than those

immediately prevailing. All such orders are entered by the specialist in his "book," and thus he has before him concrete evidence to indicate the probable trend in the market price of his specialty—evidence which should enable him to arrange transactions in such manner as to prevent undue price fluctuations.

Floor trading is the purchase and sale of securities by members of the exchange for their own account. Members who are primarily concerned with other operations, such as commission brokerage and floor brokerage, ordinarily want to invest all or a portion of their own funds in securities; accordingly, from time to time, they have the occasion to buy and sell in their own names and at their own risk. Other members are interested exclusively in floor trading. Thus a wealthy individual who deals heavily in securities—but who has no interest whatsoever in deriving an income from commissions—is likely to gain important advantages in the ownership of a seat; by having access to the floor, he is able to execute his own orders, thereby avoiding substantial expenses for commissions, and, in addition, he is "on the spot" to buy or sell immediately upon the occurrence of events likely to cause price movements in one direction or the other.

Because most of the stocks listed on the New York Stock Exchange may be bought and sold on the floor only in hundred-share blocks, *odd-lot dealing* is of great significance. Odd-lot dealers—there are only two odd-lot houses—assemble and fill orders for less than a hundred shares by buying and selling full lots on their own account. The fractional orders are received from the other members of the exchange, chiefly from the commission brokers. The income of the odd-lot dealers is derived from a price differential—usually one eighth of a point—which buyers and sellers of odd lots must pay.

Bond brokerage designates the activity of those members of the exchange who buy and sell listed bonds in executing the orders of their customers or clients. Although all members have access to the bond department of the exchange, some concentrate their efforts upon bond transactions.

Finally, *inactive membership* describes the status of those who hold seats but who do not trade upon the floor. Inactive members include retired members, the estates of deceased members, speculators who hold seats in anticipation of a rise in their value, and investment banking houses which prefer to trade through other members.

Listing.—The securities of corporations are not bought and sold on the New York Stock Exchange unless they have gone through a formal process called "listing." To have its securities listed, a corporation must have its application approved by the exchange's "Committee on Stock List," and this requires the disclosure of much information regarding its financial structure and operations, the payment of a listing fee, and an agreement to fulfill certain obligations. Besides supplying reasonably full information re-

garding its financial affairs, the corporation must be able to show that its securities are distributed widely enough to assure a relatively broad market.

The applicant corporation must agree to maintain separate registry and transfer offices in the Borough of Manhattan, to provide a sufficient number of certificates that transfers of its securities may be made without delay, to publish financial statements annually or more frequently, and to notify the exchange of a variety of impending events which might have a substantial effect upon the market behavior of its listed securities.

OTHER SECURITY EXCHANGES

Although second in importance to the New York Stock Exchange among organized security markets in the United States, the New York Curb Exchange is not a close competitor, for the monetary value of its transactions amounts to only approximately one-tenth of that of the New York Stock Exchange. The curb is a voluntary association of 550 regular members who have the privilege of trading on the floor, and of an indeterminate number of associate members who do not trade on the floor but who obtain substantial rebates on commissions chargeable on their purchases and sales.

The curb admits securities to its formal list much in the same manner as the New York Stock Exchange, but it also permits "unlisted trading" in any securities in which its members may be interested. It has been looked upon as a desirable market for transactions in new securities and in others which need a period of "seasoning"; and after "seasoning" many securities have been moved from the curb to the "big board." The curb, however, lists many important "seasoned" security issues in its own right.

Twenty-two organized security exchanges operate in other principal cities of the United States, among the most important of which are those of Chicago, Boston, and San Francisco. Although these exchanges are concerned with trading in securities of local and regional interest, they also account for a large volume of trading in outstanding national issues listed on the New York exchanges.

REGULATION OF SECURITY EXCHANGES

Not only has the federal government adopted legislation to regulate the sale of new issues of securities in interstate commerce, but it has also taken steps to regulate the resale of securities through the organized stock exchanges. The Securities Exchange Act of 1934 requires security exchanges to register with the SEC and to abide by the rules and regulations promulgated by that agency. A security exchange which fails to register, unless specifically excused, may be penalized by being denied the use of the mails and "other instrumentalities" of interstate commerce. The penalty, however, has not been applied, as all existing exchanges have registered or have been excused from registering.⁵

⁵ At the end of June, 1945, nineteen exchanges were registered with the SEC, and five had been exempted.—*Annual Report of the Securities and Exchange Commission, 1945*, p. 9.

A registered exchange must reveal to the SEC detailed information respecting its organization, its rules of procedure, and its operations, all of which must be consonant with the regulations of the SEC. The regulations, on the whole, are designed to eliminate unethical practices, such as the operation of pools, the making of "wash sales," and the dissemination of false and misleading information respecting securities; and to limit other operations which are not unethical in themselves but which may be subject to abuse, such as dealing in options, short selling, transactions of officers, directors, and principal stockholders in the securities of their own corporations, the activities of specialists and floor traders, and price "pegging" and "stabilization."

Besides giving the SEC supervisory power with respect to the operations of registered exchanges and their members, the Securities Exchange Act gives it jurisdiction over the securities listed on such exchanges. Thus the SEC's authority extends not only to newly issued securities, as we saw above, but also to securities which have been long outstanding. Corporations which have securities listed on registered exchanges must file registration statements with the exchanges and with the SEC containing information and documents similar to the material required of corporations which put out new issues of securities. In addition, the corporations must publish balance sheets and statements of profit and loss at least annually and make copies available to their stockholders and to the SEC; other information must be disclosed to stockholders in connection with the solicitation of proxies for voting at stockholders' meetings. In exercising its regulatory powers, the SEC may suspend trading in any listed security.

The Over-the-Counter Market

Outstanding in the United States are thousands of issues of stocks and bonds which are not formally listed on the stock exchanges and which are not admitted to unlisted trading on exchanges such as the New York Curb. Yet these securities are freely bought and sold—and, indeed, many individuals and institutions would avoid them if reasonably adequate facilities for their sale were not provided. Some of them are sold by direct negotiations between buyers and sellers, but, again, most of the transactions are effected through the services of middlemen. The purchases and sales are said to take place in the "over-the-counter market," which has no formal location other than the offices of brokers and dealers. Transactions in the over-the-counter market are completed by personal visits of brokers and dealers, and by the use of the telephone, the telegraph, and the mails. A person who has an unlisted security to sell notifies his broker, and the latter "shops around," perhaps by telephone, among other brokers and dealers and among his clients to find a buyer.

Transactions in government securities are almost exclusively handled in

the over-the-counter market, and that market accounts for a majority of the purchases and sales of United States government obligations, even though they are listed on the New York Stock Exchange. The stocks and bonds of corporations which refuse to reveal all the information required for listing on the stock exchanges; the stocks of banks and insurance companies which do not favor a speculative interest in their securities; securities which are closely held by families and groups; small, local issues—all these pass from hand to hand in the over-the-counter market. In addition, the over-the-counter market accounts for numerous transactions in stocks and bonds—particularly the latter—which are listed on the exchanges.

MIDDLEMEN

The middlemen in the over-the-counter market are not entirely distinct from those individuals and institutions in the capital market whose functions we have already discussed. Investment banking houses not only participate in bringing out new issues of securities, but also willingly accept orders from their clients for the purchase and sale of any stocks and bonds already outstanding; and most of the commission brokers who trade on the exchanges also handle an extensive volume of business in the over-the-counter market.⁶ In their operations in this market, these institutions and other middlemen act either as brokers or as dealers, that is, they may be employed as agents on a commission basis, or they may buy and sell in their own names.

As a matter of fact, over-the-counter middlemen usually depend for their income upon profit margins between buying and selling prices, rather than upon commissions. Suppose, for example, that a middleman receives an order from a customer who wants to sell a hundred shares of a certain stock at \$90 per share. The middleman would be likely to buy the stock outright if by his telephonic "shopping" he finds another middleman who is willing to buy the stock at, say, 91. He would thus earn a profit of one point per share. The second middleman, in turn, might be willing to pay 91 because he has an order from a customer who wants to buy a hundred shares at 92, and he too would make a profit of one point per share.

SUPERVISION OF MIDDLEMEN

The broker-dealer in the over-the-counter market has usually been in a position to take advantage of his customers if he were so inclined. The relative secrecy with which negotiations are carried on, the absence of precise information respecting security prices, and the broker-dealer's intimate knowledge of the market situation as against the customers' relative ignorance—these factors have placed the broker-dealer in a superior bargaining

⁶ Thus of the 6,065 over-the-counter brokers and dealers registered with the SEC as of June 30, 1941, approximately 1,200 were members of national security exchanges.—*Annual Report of the Securities and Exchange Commission*, 1941, p. 154.

position. In recognition of this fact, Congress, in the Securities Exchange Act of 1934 and its amendments, made over-the-counter middlemen subject to the supervision of the SEC. Acting under the authority of that legislation, the SEC has required all middlemen to register with it. The registration is in the form of an application in which the broker-dealer presents certain information regarding himself and his activities, and the application becomes a license thirty days after it is filed if the SEC in the meantime does not specifically reject it. (See Table 55 for registration statistics.)

TABLE 55
OVER-THE-COUNTER MIDDLEMEN REGISTERED UNDER THE SECURITIES
EXCHANGE ACT, 1936-1945

Date	Total	Sole proprietorships	Partnerships	Corporations ^a
Jan. 2, 1936	5,326	2,048	1,537	1,741
Dec. 31, 1936	6,372	2,640	1,634	2,098
Dec. 31, 1937	6,882	3,049	1,671	2,162
Dec. 31, 1938	6,815	3,160	1,586	2,069
Dec. 31, 1939	6,679	3,219	1,517	1,943
Dec. 31, 1940	6,417	3,170	1,437	1,810
June 30, 1941	6,133	3,020	1,397	1,716
June 30, 1942	5,590	2,787	1,317	1,486
June 30, 1943	4,950	2,447	1,227	1,276
June 30, 1944	4,323	2,032	1,219	1,072
June 30, 1945	4,099	1,837	1,247	1,015

^a Includes all forms of organization other than sole proprietorships and partnerships.

Source: *Annual Reports of the Securities and Exchange Commission.*

The SEC has established a group of rules for the conduct of business by over-the-counter middlemen, and it depends chiefly upon examinations of the books and records of the middlemen to assure itself that the rules are being observed. The substance of the rules may be described as follows: the middleman must not misstate or omit material facts with respect to the securities in which he deals; he must not state or imply that the SEC has approved any such securities; he must inform his clients if he is acting as broker for both buyer and seller in the same transaction, or if he is buying or selling on his own account; if acting as broker, he must state what fees and commissions he and other brokers are charging on specific transactions; he must make available to his clients information as to the identity of the buyers or sellers of the securities and at what time the transactions took place; he must disclose to his clients any position of special interest which he himself has with respect to any securities in which they desire to deal; and he must obtain the written consent of his clients if he wants to pledge any securities belonging to them as collateral upon loans.

A further step to promote sound standards of operations in the over-

the-counter market was taken with the adoption in 1938 of an amendment to the Securities Exchange Act which provides for a substantial measure of self-policing among the middlemen through the agency of voluntary associations established by themselves but subject to the supervision of the SEC. One such organization, the National Association of Security Dealers, has been officially recognized by the SEC; it has worked earnestly with the SEC in formulating and enforcing rules of proper business conduct for the over-the-counter middlemen who have become its members.

Chapter 38

BANKING INSTITUTIONS FOR THE FARMER

The Scope of Farm Credit

The typical American farm is both a household and a business enterprise, and the line of demarcation between production and consumption is not so clearly drawn as in other walks of life. As the total resources needed to operate both the farm and the farm-home are often beyond the means of the individual farmer, he must ask for the assistance of financial institutions. He may want to borrow not only as a producer but also as a consumer. He may need not only buildings, machinery, fencing, fertilizer, and seed, but he may also desire to buy furniture, a washing machine, a refrigerator, a radio, and other household equipment, planning to make payment out of his future income. His borrowings for consumption purposes are not greatly different in character from those of factory workers, office employees, and other consumers; and he normally has recourse to the same consumption credit institutions as they—the institutions whose operations were analyzed in Chapter 35.

As a producer, the farmer, in his need of credit, occupies a position somewhat similar to that of other businessmen, although he is likely to place greater emphasis upon intermediate- and long-term credit than do other enterprisers. The farmer requires long-term credit for the original acquisition of farm land, for the erection of buildings, for the draining and clearing of land, and for the purchase of machinery; he needs intermediate-term credit for fencing, for the erection of the smaller farm buildings, for the purchase of the less costly types of farm machinery, for the purchase, breeding, and raising of livestock, and for the planting of orchards; and he needs short-term credit for the payment of wages to his hired hands, for feed, seed, and fertilizer, for other supplies of many kinds, and for the holding of crops for "orderly marketing."

PROBLEMS OF FARM CREDIT

The acquisition by farmers of producers' goods in the present against promises to pay in the future involves problems and hazards not commonly encountered in other fields of credit. Not only is it difficult to

determine the dividing line between the farmer's activities as producer and consumer—and therefore to determine whether a particular extension of credit is to be used for consumption or for productive purposes—but also the small size of the average farm makes for difficulty in the analysis of credit risks, as well as in the administration of loans after they have been granted. While farm accounting methods and the interest of farmers in keeping accurate records have improved in recent years, it remains true that the banker often must depend upon inadequate data in deciding upon the extension of farm loans.

In farming, the success or failure of the enterprise depends more fully upon the ability of a single individual than in other kinds of business. Moreover, when farmers borrow for long-, intermediate-, and short-term purposes, the total credit acquired may be disproportionately large in comparison with the farmer's "equity" in the enterprise. Finally, the special hazards to which farm operations are subject are well known. Excessive rainfall, unseasonal frosts, windstorms, drouths—any of these may destroy the fruits of a farmer's year-long productive efforts. Even when the good earth is bountiful, the farmer may suffer economic disadvantages, for bumper crops may cause market prices to fall to such levels that his income is greatly reduced.

In view of the difficulties and hazards involved in the extension of farm credit, privately owned financial institutions have generally found it impossible to provide the farmer with capital upon terms as liberal as those allowed other enterprisers. High rates of interest, unreasonably short maturities, and other restrictive terms have commonly characterized the loans granted to farmers. The farmer, in turn, has often failed to make allowances for the risks assumed by financial institutions, and, as a result, he has been accustomed to look upon the banks with suspicion.

As individualists, farmers have been slow to band together, to pool their resources, and to assist one another in meeting their common credit problems; but for many decades they have been conscious of their great political power, and their demands for governmental assistance have usually received a favorable response in Washington. The Senate, because of its geographical composition, has been especially receptive to the farmers' pleas. At all events, much federal legislation in recent years has been devoted to the establishment and expansion of special facilities designed to meet all the farmers' credit requirements. So comprehensive, indeed, has been the incursion of the federal government into the field of farm finance that its institutions now tend to dominate it. Necessarily, therefore, the greater part of this chapter must be devoted to a study of the work of the federal institutions; such an allocation of space is desirable, in any case, because the peculiar setup, functions, and procedures of the federal institutions require a more detailed analysis for understanding than do the less complex organization and activities of the private agencies of farm credit.

*Private Sources of Farm Credit***LONG-TERM CREDIT**

Before the launching of the Federal Land Bank System in 1917, farmers had to depend for long-term mortgage credit upon individual investors and upon such privately owned institutions as farm mortgage companies, life insurance companies, commercial banks, savings banks, and trust companies. Some of these lenders have continued since 1917 to occupy a prominent place in the farm mortgage field, as the data of Table 56 indicate, while others have declined in importance.

TABLE 56
ESTIMATED FARM MORTGAGE DEBT, SELECTED YEARS, 1910-1945^a
(In millions of dollars)

Beginning of year	Total	Federal land banks ^b	Life insurance companies	Commercial banks	Farm Security Administration	Individuals and others
1910	3,208	—	387	406	—	2,415
1913	4,348	—	550	674	—	3,124
1916	5,256	—	766	776	—	3,715
1919	7,137	157	1,018	1,030	—	4,932
1922	10,702	443	1,432	1,540	—	7,287
1925	9,913	923	1,943	1,200	—	5,846
1928	9,757	1,145	2,173	1,097	—	5,342
1931	9,398	1,197	2,087	947	—	5,167
1934	7,685	1,329	1,698	711	—	3,948
1937	7,154	2,989	1,016	488	—	2,662
1939	6,779	2,863	983	519	15	2,399
1940	6,586	2,723	984	534	39	2,306
1941	6,534	2,642	1,016	543	73	2,259
1942	6,484	2,516	1,063	535	122	2,248
1943	6,117	2,262	1,043	477	164	2,172
1944	5,635	1,883	987	448	177	2,140
1945	5,271	1,557	934	450	179	2,151

^a Including purchase money mortgages and sales contracts in 1931 and thereafter.

^b Including in 1934 and thereafter loans of the Land Bank Commissioner.

Source: U.S. Department of Agriculture, *Farm-Mortgage Credit Facilities in the United States*, Miscellaneous Publication No. 478, 1942, p. 12, and data of the Farm Credit Administration.

A great volume of farm mortgages has always been held by individual investors. Thousands of farmers, when retiring from active life, have followed a policy of selling their farms on terms calling for a down-payment in cash and a mortgage for the remainder of the sales price. Well-to-do farmers, whether active or retired, often prefer to invest their wealth in farm mortgages than in any other kind of property. And many people of wealth, though they may have no direct interest in farming, have a similar investment preference.

Privately owned farm mortgage companies were prominent sources of long-term farm credit for many decades, but after the establishment of the federal land banks and other federal institutions, they rapidly declined in significance. Only a few continue in operation. Most of the existing mortgage companies operate over a rather extensive territory and employ local branches and agents to discover mortgages of good investment quality. The branch manager or agent receives applications from farmers, makes preliminary investigations, and then refers the applications to the head office. When an application is granted, the farmer pays a commission and receives the proceeds of the loan. The mortgage companies often sell the mortgages they have acquired to individual and institutional investors or pledge them as security for bonds which they sell to the general public to raise additional funds for lending.

Life insurance companies have long been heavy investors in farm mortgages, although their holdings tend to vary considerably according to the state of the farm real-estate market. Many of the larger insurance companies have field organizations similar to those of the farm mortgage companies. The local branches and agents receive applications for mortgage loans, investigate the credit risks, appraise the property to be mortgaged, and refer the applications with their recommendations to the head office. Life insurance companies also buy frequently through brokers and from the farm mortgage companies.

Commercial banks, savings banks, and trust companies are also important as investors in farm mortgages, particularly when these institutions are located in farming regions. Rural commercial banks have often had an extraordinarily large proportion of their resources invested in farm mortgages—a situation which was responsible for the “frozen” condition of many during the period of the 1920's. Savings banks and trust companies, because of the legal limitations which restrict their choice of investments, have generally looked upon mortgages as a favorite outlet for their funds. Although these institutions prefer to invest in urban mortgages, many maintain sizable portfolios of farm mortgages.

INTERMEDIATE- AND SHORT-TERM CREDIT

The principal source of intermediate- and short-term credit for the farmer has been his local commercial bank. National and state commercial banks located in farming regions have normally employed the greater part of their resources in supplying farmers with working capital. Except for investments in securities, banks which operate in these regions have few other outlets for their funds. As a matter of fact, they are likely to “overload” with farm paper—a policy which places them in a hazardous position in times of agricultural depression.

In some sections of the country, farmers engaged in the breeding, raising, and fattening of cattle and sheep have access to livestock loan

companies for short- and intermediate-term credit. Some of these companies are independently organized and managed, and others are affiliated with commercial banks. They obtain their loanable funds by selling the promissory notes of the borrowing farmers either to their affiliated banks or to other commercial banks, or by rediscounting them at the federal intermediate credit banks. The spread between the rate charged the farmer and the discount rate at which the paper is sold or rediscounted represents the gross profit margin of the loan companies. For their protection, the loan companies require their farmer-clients to give chattel mortgages on the livestock whose preparation for market is being financed. Individual loans range in size from \$1,000 to as much as \$500,000. Loans granted for the raising of cattle and sheep usually run for two or three years, while those extended for fattening in the "corn belt" ordinarily have a maturity of six months. Some livestock loan companies also make installment loans for the purchase and maintenance of dairy cattle.

A large portion of the working capital used by some farmers is derived from sources other than financial institutions. In the production of certain kinds of crops, such as cotton, farmers or "planters" are often supplied with short-term credit by *factors*, who are middlemen engaged in buying up crops and passing them on to the processing mills. Factors advance funds to the farmers for seed, fertilizer, and other supplies, and protect themselves by taking liens upon the growing crops. They deduct the amounts advanced plus interest and commissions when making payment to the farmers after the crops have been harvested. Tenant-farmers or sharecroppers obtain much of their working capital from their landlords. Their contracts of tenancy call not only for the occupation of the land, but also for the use of tools and equipment, and quite often for seed and other supplies. A portion of the crop is the payment made for all the advances obtained from the landlord. In some localities, merchants furnish farmers with tools, equipment, and supplies of all kinds, and obtain repayment with interest when the crops are sold. These merchants differ from factors in that they advance little cash and in that they are not interested in acquiring the crops themselves.

The Farm Credit Administration

ORGANIZATION

On May 27, 1933, most of the federal institutions in operation in the field of farm finance were consolidated in the Farm Credit Administration, by the terms of an executive order issued by President Roosevelt two months earlier. Since then, other credit institutions have been added from time to time. Originally an independent agency, the FCA was subsequently made a division of the Treasury Department, and, by President

Roosevelt's plan of reorganization which became effective July 1, 1939, it was transferred to the Department of Agriculture.

Four principal divisions of the FCA are respectively concerned with the supply of long-term mortgage credit to farmers, rediscount facilities for short- and intermediate-term credit, the supply of credit through farmers' associations for short-term purposes, and the supply of both short- and long-term credit to farmers' cooperative associations. These divisions are headed by four officials known respectively as the Land Bank Commissioner, the Intermediate Credit Commissioner, the Production Credit Commissioner, and the Cooperative Bank Commissioner.

Other divisions of the FCA have for their duties the liquidation of the regional agricultural credit corporations which were established by the RFC in 1932 and the administration of the remaining mortgage-refinancing work of the Federal Farm Mortgage Corporation.¹

MANAGEMENT

The chief executive of the Farm Credit Administration is the Governor, who is appointed by the President with the advice and consent of the Senate. The Governor, who is directly responsible to the Secretary of Agriculture, exercises general supervision over all the federal agencies which come within the jurisdiction of the FCA. Some of his statutory powers are the following: (1) to appoint four directors for each group of federal farm banks in the twelve farm credit districts; (2) to serve as a director of the Federal Farm Mortgage Corporation; (3) to determine the capitalization of the banks for cooperatives; and (4) to use the balance of the revolving fund set up by the Agricultural Marketing Act of 1929 in supplying capital to some of the farm credit agencies. The Governor is assisted by two deputy governors, also appointed by the President with the advice and consent of the Senate.

The four commissioners mentioned in the preceding section also receive their appointment from the President, and they are responsible to the Governor of the FCA. Of the four, the Land Bank Commissioner is the most important. He is the successor of the Farm Loan Commissioner, who was the chief executive of the old Federal Farm Loan Board. In addition to his authority to supervise the financial institutions which come within the scope of his division, the Land Bank Commissioner has important lending powers in his own right, with loan funds totaling \$800,000,000 at present at his disposal.

Each of the four commissioners has the authority to supervise the operations of the federal farm credit agencies grouped within his respective division. The Land Bank Commissioner, for example, supervises the activi-

¹ Until May 16, 1942, the FCA also issued charters to federal credit unions and supervised their affairs, but as of that date these functions were transferred to the Federal Deposit Insurance Corporation. An executive order of President Roosevelt of April 27, 1942, authorized the transfer.

ties of the twelve federal land banks, receives reports of condition, subjects them to examination, supervises the sale of their bonds, passes upon the interest rates charged upon their loans, issues charters to national farm loan associations and examines them, and appoints appraisers to evaluate farm property offered as security for loans. Similarly, the Production Credit Commissioner supervises the operations of the twelve production credit corporations, requires reports of condition, provides for their examination, and issues charters to and oversees the work of the production credit associations. And so with the Intermediate Credit Commissioner and the Cooperative Bank Commissioner.

FARM CREDIT DISTRICTS

The country has been divided into twelve farm credit districts whose boundaries are shown in the chart on page 640. In a principal city of each of these districts are located a federal land bank, an intermediate credit bank, a bank for cooperatives, and a production credit corporation—all four of which are under the control of a single board of directors known as a *farm credit board*. Each of the four types of institutions is separately capitalized and fulfills separate functions, but the four institutions operate in a single location and are subject to identical control.

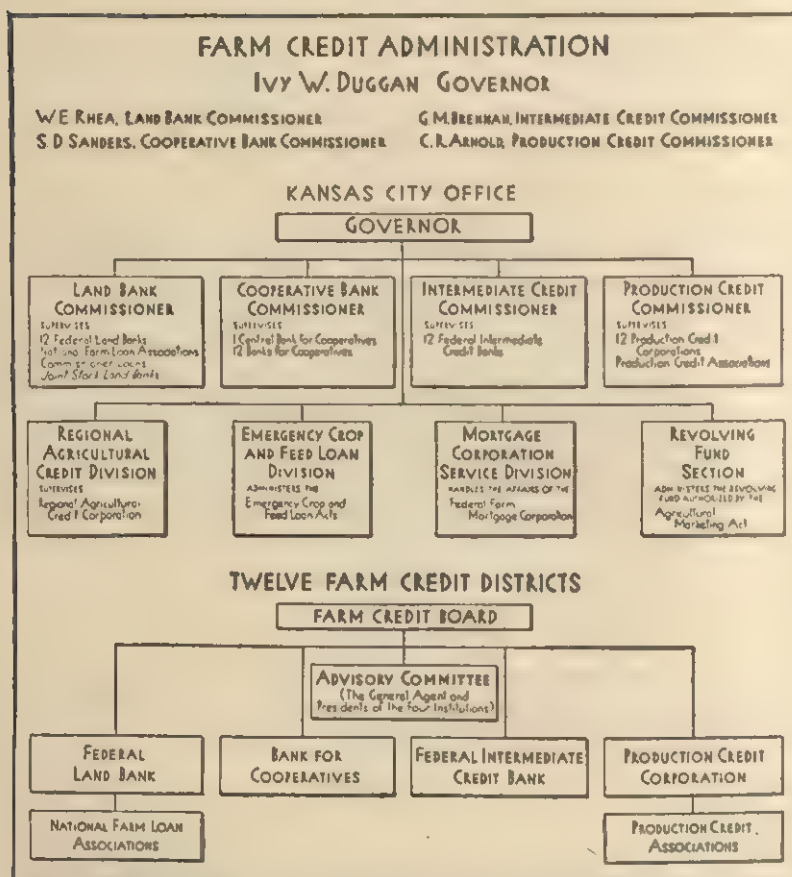
Every farm credit board is composed of seven members, each of whom is allotted a three-year term. The borrowers from the district federal land bank choose one director, the borrowers of short-term credit under the auspices of the district production credit corporation choose a second, and the borrowers from the district bank for cooperatives choose a third. A fourth member is appointed by the Governor of the FCA from a list of three nominees chosen by the borrowers from the federal land bank; the remaining three directors are appointed directly by the Governor of the FCA.

The Governor of the FCA appoints for each farm credit district a *general agent* whose responsibility it is, in cooperation with the district farm credit board, to coordinate the activities of the four banks. The general agent directs the legal, accounting, informational, and statistical work of his district. The farm credit board of each district, in turn, selects separate presidents for the four banks as active executive officers. The four presidents and the general agent constitute an "advisory committee." Some of the employees of each district devote their time exclusively to the work of a single institution, while others simultaneously serve two or more of the four agencies.

The Federal Land Bank System

CAPITALIZATION OF THE LAND BANKS

Stock and Surplus.—The twelve federal land banks were organized in March and April, 1917, under the authority of the Federal Farm Loan Act



NOTE: The Emergency Crop and Feed Loan Division, shown here as an agency of the FCA, was transferred on November 1, 1946, to the newly established Farmers Home Administration. It is to be noted also that the headquarters of the FCA were returned to Washington from Kansas City in 1946.

Source: Farm Credit Administration.

of 1916. Almost all the original capital of each bank—\$750,000 with a par value of \$5 per share—was subscribed by the Treasury, but the legislation of 1916 provided for the retirement of the Treasury-owned stock as subscriptions were received from other sources. When in 1932 most of the stock owned by the Treasury had been retired, emergency legislation supplied it with \$125,000,000 for reinvestment in the stock of the federal land banks to augment their loanable funds; subsequent legislation authorized the Treasury to make contributions to the paid-in surplus of the banks. By June 30, 1946, however, all the federal land banks, except that of St. Paul, Minnesota, had retired the capital stock and paid-in surplus previously held by the Treasury. The Treasury's remaining investment in the St. Paul institution amounted to \$40,000,000 in capital stock and \$36,900,000 in paid-in surplus.² No dividends are paid on stock held by the Treasury.

All borrowers from a federal land bank are required to subscribe to its stock in an amount equal to 5 per cent of the loans, but while such subscriptions increase the bank's outstanding stock, they do not provide any loanable funds. The law does not limit the dividends payable on privately owned stock, although each bank is required to set aside 50 per cent of its semiannual earnings in a reserve until the reserve is equal to the face value of outstanding stock other than that held by the Treasury; thereafter, 10 per cent of the earnings must be so segregated. Dividends voted by the district farm credit boards are subject to the approval of the Governor of the FCA. Outstanding capital of the land banks, exclusive of that held by the Treasury, amounted to \$233,500,000 on June 30, 1946.³

Land Bank Bonds.—The federal land banks have as their principal source of loanable funds the sale of their bonds through the regular investment banking channels. The only issues now sold are consolidated ones, that is, they are the joint and several obligations of the twelve banks. Total issues are limited to an amount equal to twenty times the banks' capital and surplus, and the maximum rate of interest permitted is 5 per cent. The bonds are not guaranteed either as to principal or interest by the United States government, but they are secured by the farm mortgages taken by the banks in their lending operations, and, to a small extent, by pledged treasury obligations. The size of issues, the rate of interest, the maturity, and the collateral pledged are all subject to the approval of the Land Bank Commissioner.

"Federal farm loan bonds" have generally been looked upon by the public as excellent securities. One of their important investment features is that their principal is exempt from state and local property taxation, and the interest, from state income taxation. They are included in most of the legal lists of investment securities eligible for purchase by trust companies and by savings banks.

² *Treasury Bulletin*, October, 1946, p. 65.

³ *Ibid.*

LENDING OPERATIONS OF THE LAND BANKS

Scope of Lending Authority.—The federal land banks are authorized by law to grant loans to national farm loan associations, to farmers who do not have access to associations, and to corporations engaged in the raising of livestock. Except for those of the third class, loans may be made only on the security of first mortgages on farm property, and in an amount not exceeding 65 per cent of the appraised normal value of the land and improvements. Individual loans may range from \$1,000 to \$50,000, although those in excess of \$25,000 must have the approval of the Land Bank Commissioner. The maturity of loans may be as short as five years or as long as forty years, and all loans must be amortized by semiannual or annual payments.

The purposes for which the federal land banks may lend are the following: (1) for the purchase of land for agricultural uses; (2) for the purchase of equipment, fertilizer, and livestock necessary for farm operation; (3) for the improvement of farm land and for the erection of farm buildings; (4) for the liquidation of indebtedness incurred before January 1, 1937; (5) for the liquidation of indebtedness, regardless of the date thereof, if incurred for agricultural purposes; and (6) for the supplying of funds for general agricultural operations.

The interest charged on loans granted by the federal land banks is subject to certain limitations. The general rule is that the rate on loans must not exceed by more than 1 percentage point the rate payable by the banks on their most recent issue of bonds. The absolute maximum is set at 6 per cent. In recent years, the contract rate negotiated by the banks on the majority of their loans has been 4 per cent;⁴ beginning in 1935, and continuing to July 1, 1944, however, the rate actually paid by borrowers was 3.5 per cent, the lower rate having been prescribed by Congress as a means of reducing the burden of farm indebtedness. While the lower rate was in effect, the Treasury was required to reimburse the federal land banks for the interest lost on account of the mandatory reduction.

Loans through National Farm Loan Associations.—Most of the loans of the federal land banks are not made direct to farmers, but through the intermediary of national farm loan associations. Such an association is a corporation chartered by the Farm Credit Administration for the purpose of bringing together owners of farms and those who are about to become owners of farms and who want to obtain mortgage credit from the federal land banks. An association may be formed by ten or more farmers who desire to borrow in the aggregate not less than \$20,000. Each farmer-borrower, regardless of the size of his stockholdings, has one vote in the election of directors and in deciding upon administrative policies. Each

⁴ In 1943, the twelve district farm credit boards reduced to 4 per cent the contract rate on all outstanding mortgage loans granted by the land banks through national farm loan associations; by this action, the interest rate on older loans, which had ranged from 4½ to 6 per cent, was made comparable with that on loans being currently negotiated.

association has a board of directors of five to seven members, a president, a secretary-treasurer, and a loan committee of three or more members. Most of the administrative work is performed by the secretary-treasurer, who need not be a stockholder.

A farmer who borrows through a national farm loan association must subscribe to its stock in an amount equal to 5 per cent of the amount borrowed; and the association, in obtaining funds from the district federal land bank to pass on to the farmer, must in turn subscribe to the stock of the

TABLE 57

OUTSTANDING LOANS OF THE FARM CREDIT ADMINISTRATION,
DECEMBER 31, 1945

(In thousands of dollars)

Farm mortgage loans:	
Federal land banks.....	\$1,027,587
Land Bank Commissioner.....	228,397
Total.....	1,255,984
Loans to cooperatives:	
Federal intermediate credit banks (direct).....	2,042
Banks for cooperatives.....	157,545
Agricultural Marketing Act revolving fund.....	2,693
Total.....	162,280
Short-term credit:	
Federal intermediate credit banks.....	269,749
Production credit associations.....	198,890
Regional agricultural credit corporations.....	6,151
Emergency crop loans.....	96,773
Drouth relief loans.....	33,726
Orchard rehabilitation loans.....	6
Total.....	605,296
Grand total.....	2,023,560
Less federal intermediate credit bank loans to and discounts for other	
Farm Credit Administration institutions.....	241,879
Net total.....	\$1,781,681

Source: Farm Credit Administration, *Semiannual Report on Loans and Discounts*, December 31, 1945, p. 1.

land bank in an amount equal to 5 per cent of the loan. Thus if a farmer were negotiating a loan of \$20,000 from his association, he would receive \$19,000 in cash and \$1,000 par value of its stock; and the association, in turn, would receive \$19,000 from the land bank and \$1,000 par value of its stock. When loans are repaid by farmers, their stock in the association is surrendered and canceled; and thus also when loans are repaid the land banks by the associations.

The farmer who wants to borrow on the security of a first mortgage on

his farm property makes an application for a loan to the national farm loan association in his locality. Its loan committee examines the application, passes upon the character and qualifications of the prospective borrower, considers the quality of the security offered, and, if satisfied, recommends the loan to the association's board of directors. If the board approves, the application is referred to the federal land bank of the district. The land bank, in turn, sends an official appraiser—who is appointed, one for each farm credit district, by the Land Bank Commissioner—to evaluate the property offered for mortgage. When all preliminaries have been completed, the loan is granted by the land bank to the association, and the association passes the funds on to the farmer-borrower; the stock subscriptions mentioned in the preceding paragraph are taken care of simultaneously.

What the complex procedure described above really amounts to is that the farmers who belong to a national farm loan association guarantee the land banks against losses up to 5 per cent of the face value of the loans made through the association. In a word, the association indorses the loans, but the members are liable only to the amount of their stock subscriptions in the association. To clarify this statement, let us take a concrete example. Suppose that a land bank makes loans aggregating \$100,000 to an association. The association would have to own stock in the land bank of \$5,000, and all of such stock would be forfeited if loans of that amount or more were unpaid. The forfeiture of the stock would wipe out the value of the association's stock owned by the farmers. Thus a solvent farmer who had borrowed \$10,000, and had received \$9,500 cash and \$500 par value of association stock, would have to repay \$10,000, but the stock would presumably have no redemption value.

The national farm loan associations, on the whole, have been extremely weak as financial institutions, for even moderate losses tend seriously to impair their capital. Of late, however, the federal land banks have encouraged associations to consolidate with their neighbors and to take other action necessary to make them strong institutions capable of providing, like other banking institutions, a full-time service for their member-borrowers. A reduction in the number of associations from 3,484 to 1,781 in the period from January 1, 1943, to June 30, 1945, is indicative, at least in part, of the consolidation movement.⁵

Direct Land Bank Loans.—In rural districts where there are no national farm loan associations, or where, for a variety of reasons, farmers are unable to borrow through associations, they may obtain long-term mortgage credit direct from the federal land banks. Each borrower must, however, obtain the indorsement of a responsible third party, and he must pay a rate of interest .5 point above that charged on loans made through associations. In accordance with the customary procedure, the farmer who borrows

⁵ *Interim Report of the Farm Credit Administration*, December 31, 1943, p. 6, and *Annual Report*, 1945, p. 24.

must subscribe to the stock of the federal land bank in an amount equal to 5 per cent of the sum borrowed.

LOANS OF THE LAND BANK COMMISSIONER

The Emergency Farm Mortgage Act of 1933 made available to the Land Bank Commissioner a total of \$200,000,000 to be used in making direct loans to farmers who were unable to obtain adequate credit from the federal land banks; subsequently the lending power of the Commissioner was increased to \$800,000,000. In granting loans, the Commissioner acts as an agent of the Federal Farm Mortgage Corporation—an "emergency agency" established in 1934 to supplement the work of the land banks in refinancing defaulted and hazardous farm mortgages—for his loan funds are supplied by it and the mortgages received as security immediately become its property. The Commissioner is empowered to make loans for the same purposes as the land banks, but his authority extends beyond that of the land banks in that he may accept second as well as first mortgages as security for his loans.

Loans of the Land Bank Commissioner are limited to a maximum of \$7,500 to each borrower, and each loan, together with all other outstanding indebtedness of the borrower secured by the mortgaged property, must not exceed 75 per cent of the appraised value of the property. Loans of the Commissioner, like those of the land banks, may run as long as forty years, but most of those which have been granted have a maximum maturity of twenty years. The contract rate on loans has been 5 per cent; by Congressional mandate, however, lower rates were substituted in the period from July 22, 1937, to July 1, 1945, and the Treasury was directed to reimburse the FPMC for the difference between the contract rate and the substituted rates.

The Federal Production Credit Corporations and Associations

PRODUCTION CREDIT CORPORATIONS

To provide new short-term credit facilities for farmers, the Farm Credit Act of June 16, 1933, authorized the creation of a system of production credit corporations and associations. Although there appears to be, at first glance, a close parallel between the production credit corporations and associations in the field of intermediate- and short-term finance, and the federal land banks and the national farm loan associations in the field of long-term finance, one must be careful to note the substantial dissimilarities. The principal one lies in the fact that the production credit corporations, unlike the federal land banks, are not lending institutions; their prime function, on the contrary, is to assist farmers to establish production credit associations, to supervise the associations, and to invest in their stock.

The production credit corporations are twelve in number, one located in the headquarters city of each of the farm credit districts. They are not only

chartered by the federal government, but they are wholly owned by it as the sole stockholder. Originally the government provided each corporation with \$7,500,000 of capital, but the Governor of the FCA has the authority to raise and lower the capital according to current needs. On June 30, 1946, the total capital of the twelve corporations amounted to \$101,200,000, and the surplus to \$15,600,000.⁶

PRODUCTION CREDIT ASSOCIATIONS

Organization.—The production credit associations, like the national farm loan associations, are corporations chartered by the Farm Credit Administration. Ten or more farmers, stock raisers, or dairymen who desire to borrow funds for intermediate- and short-term purposes may cooperate in organizing an association. The member-borrowers must subscribe to the Class B stock of the association in the amount of \$5 for every \$100 or fraction thereof borrowed. The Class A stock of all associations, which is preferred as to assets in case of liquidation, is sold almost exclusively to the production credit corporations of the respective farm credit districts, although it is also available for sale to the general public. The outstanding Class A stock of each association is supposed at all times to be equal in amount to 20 per cent of the outstanding loans of the association, although the Governor of the FCA may permit a production credit corporation to invest a larger amount. No voting power is coupled with ownership of Class A stock.

The Class B stockholders, that is, the member-borrowers, choose the directors of the association for the supervision of its business operations. Each Class B stockholder has one vote irrespective of the number of shares he holds. The directors choose a loan committee to pass upon applications, as well as a secretary-treasurer who is the principal executive officer. Contrary to the procedure observed by the national farm loan associations, Class B stock is not redeemed when a loan is repaid; if within two years its holder does not negotiate a new loan, it is exchanged for Class A stock.

On June 30, 1945, a total of 514 production credit associations, having 369,000 members, were in operation in the United States. Their combined capital at that time amounted to \$86,932,000, of which \$55,700,000 was held by the production credit corporations.⁷

Loans of the Associations.—The production credit associations arrange loans to assist their members in the planting, cultivation, harvesting, and marketing of farm crops of all kinds, in the raising and marketing of live-stock, in the repairing and improving of farm buildings, and in the refunding of outstanding debts contracted for farm purposes. The minimum loan granted is \$50, and the maximum without special permission must not exceed 20 per cent of an association's capital and surplus. Loans in excess of 20 per cent of capital and surplus may be granted on the approval of the

⁶ *Treasury Bulletin*, October, 1946, p. 65.

⁷ *Annual Report of the Farm Credit Administration*, 1945, p. 3.

district production credit corporation, but those in excess of 50 per cent must have the approval of the Production Credit Commissioner.

The maximum maturity permitted when a loan is negotiated is one year, although, by means of renewals, the loan period may be extended to as much as three years. Most loans are actually granted for periods of less than a year. The borrower must provide adequate security, such as a chattel mortgage on growing crops, livestock, or other personal property. The rate charged must not exceed by more than 3 percentage points the discount rate in effect at the district federal intermediate credit bank. Since February, 1939, the association rate has been $4\frac{1}{2}$ per cent throughout the country. When loans are repayable in installments, as many of them are, the rate is applied only to the unpaid balance and not to the full amount of the loan.

Source of Loanable Funds.—The proceeds of the sale of Class A and Class B stock may not be used by production credit associations in granting loans to members, but must be invested in approved securities, consisting chiefly of the obligations of the federal government. Such securities, however, may be pledged with the intermediate credit banks for loans upon the promissory notes of the associations, and funds so borrowed may be reloaned to members.

The major portion of the funds loaned by the production credit associations is obtained by rediscounting the paper of the member-borrowers with the intermediate credit banks. With the approval of the Governor of the FCA, the associations may also rediscount with commercial banks and with other financial institutions, but, up to the present time, the facilities of the intermediate credit banks have been adequate to meet the needs of the associations.

The Federal Intermediate Credit Banks

The federal intermediate credit banks are "bankers' banks," for they occupy a position in the farm credit field much like that of the federal reserve banks in the field of commercial banking. They make no direct loans to individual farmers, but they are an important source of credit for a variety of banking institutions and associations engaged in direct lending to farmers. Following the customary pattern, an intermediate credit bank operates in the headquarters city of each farm credit district and is under the supervision of the district farm credit board. The original capital of each bank, \$5,000,000, was supplied in full by the federal government; it may be increased or decreased from time to time by the Governor of the FCA. On June 30, 1946, the combined capital and surplus of the banks amounted to \$92,400,000.⁸

The law requires the intermediate credit banks to pay an annual "franchise tax" to the Treasury. It amounts to 25 per cent of the net income

⁸ *Treasury Bulletin*, October, 1946, p. 65.

remaining after all losses have been written off and after reasonable reserves have been set up for possible future losses.

OPERATIONS OF THE INTERMEDIATE CREDIT BANKS

The intermediate credit banks are authorized to rediscount "eligible paper" for national and state commercial banks, production credit associations, the banks for cooperatives, livestock loan companies, and other financial institutions which engage in extending credit to farmers. To be eligible, the paper offered for rediscount must satisfy the following requirements: (1) it must consist of negotiable instruments, (2) the proceeds of the paper must have been advanced or used "in the first instance" for agricultural purposes, and (3) the rate of interest charged to the borrowers on the paper must not have exceeded the intermediate credit bank rediscount rate by more than 3 percentage points. Production credit associations and the banks for cooperatives, however, may borrow not only upon eligible paper but also upon their own promissory notes secured by any collateral approved by the Governor of the FCA. Additionally, the intermediate credit banks are empowered to make direct loans to cooperative associations whose members are engaged in the production and marketing of staple agricultural crops and livestock; such loans may be made to 75 per cent of the value of the crops and livestock offered as security by means of documents of title.

Loans granted by the intermediate credit banks may run for as long as three years, although the usual maturity is one year or less. Except by special permission of the Governor of the FCA, the rate of discount charged by the intermediate credit banks must not exceed by more than 1 percentage point the rate paid on their most recent issue of debentures.

SOURCES OF LOAN FUNDS

Some of the funds which the intermediate credit banks have available for lending are supplied by their capital and surplus; but the most important source is the sale of their debentures to the general public. The debentures are consolidated issues upon which the twelve banks are jointly and severally liable. They are secured by the pledge of farm paper held by the intermediate credit banks, but they are not guaranteed in any manner by the federal government. Each bank's participation in the outstanding debentures must not exceed ten times the amount of its capital and paid-in surplus. Debentures may run as long as five years, but customarily the maturity varies from three to twelve months.

Other sources of funds for the intermediate credit banks—sources which are rarely tapped—are the following: (1) they may rediscount eligible paper with the federal reserve banks; (2) they may sell their holdings of farm paper in the open market, with or without their indorsements; and (3) they may borrow from one another or from other banking institutions.

The Federal Banks for Cooperatives

As one means of progressing toward a solution of the "farm problem" in the United States, cooperation among farmers has long been strongly advocated. Cooperative organization, it is argued, makes possible the sharing among farmers of many of the overhead expenses of planting, harvesting, and marketing—expenses which must be borne in full by the farmers individually in the absence of cooperation. Further to encourage the creation and expansion of cooperative associations, the Farm Credit Act of June 16, 1933, provided for special banking facilities to supply them with both fixed capital and working capital. A Central Bank for Cooperatives was set up in Washington,⁹ and a district bank for cooperatives in each of the twelve farm credit districts. The central bank is managed by a board of directors consisting of the Cooperative Bank Commissioner and six additional members who are appointed by the Governor of the FCA from a list of candidates nominated by borrowing cooperative associations; each district bank is subject, as one might suspect, to the supervision of the district farm credit board.

All the original stock of the thirteen banks was subscribed by the federal government. A total of \$50,000,000 was subscribed to the capital of the central bank, and \$5,000,000 to the capital of each district bank; but the government's share in the combined capital of the banks has been changed from time to time. On June 30, 1946, it amounted to \$178,500,000.¹⁰ As in the case of the intermediate credit banks and the production credit corporations, the Governor of the FCA may increase or decrease the stock of the district banks according to their individual requirements. Additional stock is sold to the cooperative associations which borrow; they are required to subscribe in an amount equal to 5 per cent of their operating capital and facility loans, and in an amount equal to 1 per cent of their commodity loans. Capital stock held by cooperative associations amounted to only \$6,500,000 on June 30, 1946.¹¹

LOANS OF THE BANKS FOR COOPERATIVES

The banks for cooperatives are authorized to grant three types of loans to farmers' cooperative associations: commodity loans, the proceeds of which are to be used for such purposes as the handling, grading, sorting, and packing of farm products in preparation for sale; operating capital loans, to be used in meeting miscellaneous direct and overhead current costs of operation; and facility loans, to assist cooperatives to buy or construct warehouses, bins, receiving and sorting stations, and other capital equipment.

⁹ During the war years, the central bank was located in Kansas City, Missouri, which was also the temporary national headquarters of the Farm Credit Administration. In 1946, both the central bank and the FCA returned to Washington.

¹⁰ *Treasury Bulletin*, October, 1946, p. 65.

¹¹ *Ibid.*

The first two types of loans are of a short-term character and are generally repaid at the close of a marketing season; while those made for the acquisition of facilities may have maturities as long as twenty years. Most facility loans, however, are extended for ten-year periods and are repayable in installments. Virtually all loans granted by the banks for cooperatives are secured—commodity loans, by liens upon the farm products handled; operating capital loans, by liens upon real estate, equipment, and other assets; and facility loans, by liens upon the assets bought or constructed. In recent years, the rate of interest has been $1\frac{1}{2}$ per cent on commodity loans, $2\frac{1}{2}$ per cent on operating capital loans, and $3\frac{1}{2}$ to 4 per cent on facility loans.

Farmers' cooperatives which operate on a national or interregional basis generally borrow direct from the Central Bank for Cooperatives in Washington, while the district banks take care of the needs of most of the intra-regional cooperatives. The central bank, however, participates with the district banks in arranging local loans which are exceptionally large. In lending to a cooperative, a district bank cannot advance an amount in excess of 10 per cent of its capital and surplus (or 20 per cent, for commodity loans); hence the central bank must assist if applications for loans in excess of such limits are to be granted.

SOURCES OF FUNDS

Up to the present time, the banks for cooperatives have been able to meet virtually all requests for loans from farmers' cooperatives by merely using their capital funds. Although the central bank is authorized to issue debenture bonds to five times the amount of its paid-in capital and surplus, it has had no occasion to use this power. The central bank and the district banks may rediscount their commodity and working capital loans with the intermediate credit banks, and a limited amount of funds has been derived from this source in recent years.

In addition to rediscounting with the intermediate credit banks, the district banks may negotiate loans with the central bank and with national and state commercial banks.

The Commodity Credit Corporation

PROGRAM OF AGRICULTURAL ADJUSTMENT

One of the most important of the farm credit agencies operated by the federal government is the Commodity Credit Corporation, which is within the jurisdiction of the Department of Agriculture but independent of the Farm Credit Administration. To understand the functions of the Commodity Credit Corporation, one must be familiar with the government's program of "agricultural adjustment."

The Agricultural Adjustment Administration in the Department of Agriculture was established in 1933, but much of its original program was

nullified by adverse decisions of the United States Supreme Court; hence the original legislation of 1933 has largely been replaced, particularly by the Agricultural Adjustment Act of February 16, 1938, to bring the operations of the AAA within the realm of constitutionality.

The present program of the AAA is directed to three objectives: the maintenance of an "ever-normal granary" of basic farm products, the conservation of the soil of individual farms, and assistance to farmers to enable them to obtain an equitable share of the national income. The methods of achieving these objectives are also three in number: (1) the establishment of national acreage quotas for the production of basic crops, and the enlistment of cooperation in maintaining the quotas by the granting of "benefit payments" to the farmers who plant within acreage allotments and who use methods of farming designed to conserve the fertility of the soil; (2) the establishment of marketing quotas for cotton, corn, wheat, rice, tobacco, and peanuts, when approved by two thirds of the producers voting in referendums; by means of the quotas, producers share the market in years when excess supplies threaten to undermine reasonable price schedules; and (3) the extension of loans to farmers to assist them to carry over excess crops from one year to other years in which they may be marketed at reasonable prices. It is with respect to the third method that the operations of the Commodity Credit Corporation are important, for it grants the loans which enable farmers to withhold excess supplies of their crops from the market.

ORGANIZATION OF THE COMMODITY CREDIT CORPORATION

The Commodity Credit Corporation was established as a corporation under the laws of the state of Delaware by an executive order of President Roosevelt of October 16, 1933. Its original purpose was to make one-season loans on corn and cotton crops, in carrying out the intent of the Agricultural Adjustment Act and of the National Industrial Recovery Act of 1933. Those acts authorized the President to designate from time to time other commodities upon which loans could be advanced.

Losses on loans impaired the capital of the CCC, which had been supplied in the amount of \$100,000,000 by the Treasury; but the agency was rehabilitated by the Commodity Credit Act of March 8, 1938, which extended its lending powers and which authorized the Treasury to repair annually any reduction in its capital on account of losses. The CCC is authorized to raise additional funds by the issue of \$3,000,000,000 of bonds, notes, debentures, and other obligations, all of which are guaranteed as to the principal and interest by the federal government.¹²

On July 1, 1939, the status of the CCC as an independent agency was terminated, and it was transferred to the jurisdiction of the Department of Agriculture. In the spring of 1943, a new War Food Administration was

¹² *United States Government Manual*, Summer, 1944, p. 366.

set up within that department by executive orders of President Roosevelt, and the newly established agency absorbed the CCC as well as the Agricultural Adjustment Administration.

LOANS OF THE COMMODITY CREDIT CORPORATION

The CCC in effect guarantees to the farmers who borrow from it a stipulated price for the farm products offered as collateral. Thus by Congressional legislation the CCC was directed to make loans on 1946 crops of corn, wheat, rice, tobacco, and peanuts in an amount equal to 90 per cent of "parity," and on the cotton crop, in an amount equal to 92½ per cent of "parity." The term *parity* refers to the relationship between the prices of farm products and the prices of nonfarm products in the period from August, 1909, to July, 1914; thus the concept of "full parity" means that, in any given year, the purchasing power of the farmer bears the same relationship to the purchasing power of the nonfarm population as obtained in the five-year period immediately preceding the First World War. The guaranty of a specific price exists because the farmers who borrow may either default upon their loans without further liability or sell the pledged collateral and repay the CCC, whichever course of action is most advantageous. Suppose, for example, that a farmer were to borrow \$5,000 from the CCC on the pledge of his crops. If the market price of the pledged crops were \$5,000 or less when the loan matured, the farmer could default and consider the money received on the loan as his selling price; but if the market price were in excess of \$5,000, the farmer could sell the pledged commodities, repay the CCC, and enjoy the surplus.

In addition to the commodities mentioned, hogs, eggs, milk, chickens, turkeys, turpentine, rosin, butter, dates, figs, hops, mohair, pecans, prunes, raisins, rye, grain sorghum, and wool, all have been used as security for parity loans arranged by the CCC. The commodities are pledged by means of chattel mortgages on crops stored on the farms of the borrowers, and by means of warehouse receipts. All loans bear interest at the rate of 3 per cent per annum, and the usual maturity ranges from six to twelve months. Loans are extended not only by the CCC directly, but also by banks and other approved lending agencies which may sell the borrowers' notes to the CCC. Such financial institutions are allowed 1.5 per cent interest for the period of their investment.

Other Federal Facilities

Two other agencies of the federal government which operate in the field of farm finance remain to be mentioned, namely, the Farmers Home Administration and the Rural Electrification Administration. The first of these launched its operations on November 1, 1946, as a newly established agency in the Department of Agriculture; it absorbed the Emergency Crop and

Feed Loan Division, which had formerly been a constituent agency of the FCA, and the Farm Security Administration, which had been a lending agency independent of the FCA. As the successor of the Emergency Crop and Feed Loan Division, the Farmers Home Administration grants loans ranging from \$10 to \$400 for the purchase of seed for planting and of feed for livestock. It is authorized to make loans of this kind only to those farmers who are unable to obtain adequate credit from other sources; nevertheless, its interest charge on such loans is moderate, a rate of 4 per cent per annum having been prescribed by the act of January 29, 1937. As the successor of the Farm Security Administration, the Farmers Home Administration is authorized to grant loans of two other types: loans to destitute and low-income farm families for the purchase of supplies, livestock, and equipment, for the refinancing of indebtedness, and for family subsistence; and loans to enable "competent" farm tenants, sharecroppers, and farm laborers to become owners of farm property. Loans of the first type—the so-called "rehabilitation loans"—are extended only to families on relief or approaching that status to assist them in making a "new start"; and loans of the second variety are available preferably to those who have dependents and who can either make an initial down-payment in the purchase of farm property or supply necessary livestock and farm implements.

The Rural Electrification Administration, another agency of the Department of Agriculture independent of the Farm Credit Administration, also grants loans of two types—those for the building of rural electric distribution systems, including generating and transmission equipment, and those for the wiring of farm homes and for the acquisition by farmers of electrical and plumbing appliances and equipment. The REA does not grant loans direct to farmers and other consumers dwelling in farming regions. Instead, it makes loans of both types to public-utility companies, to municipal governments, to cooperative associations, and to other organizations of a similar character; and it grants loans of the second variety additionally to contractors, to dealers, and to others who supply and install wiring and sell electrical and plumbing appliances. Under authority of legislation adopted in 1936, the REA worked out a program of rural electrification for a ten-year period, to cost \$40,000,000 per year; but additional loans, bringing the total to approximately \$500,000,000, were subsequently authorized by Congress.

Chapter 39

BANKING INSTITUTIONS FOR THE BUILDER

The Scope of Urban Real-Estate Finance

The study of urban real-estate finance is concerned with all the facilities by means of which people are enabled to acquire urban land and buildings in the present against their promises to make payment in the future. Individuals and business organizations may want to borrow funds to acquire two types of property—residences for personal occupancy, and income-producing property, including store buildings, apartment buildings, and hotels.

Obviously, the field of real-estate finance is not really distinct from other fields of finance which we have discussed. The acquisition of homes by individuals on the basis of contracts which permit deferred payments comes within the scope of consumption credit, since a home is merely one variety of consumers' durable goods; and many of the financial operations involved in the present acquisition of income-producing property against promises to pay in the future come within the purview of investment banking. Because, however, real-estate finance has many distinctive features, and because many specialized institutions are concerned with it, we are justified in devoting a separate chapter to it.

CHARACTERISTICS OF REAL-ESTATE FINANCE

Some of the outstanding features of real-estate finance merit brief discussion. In the first place, credit granted for the acquisition of land and buildings is generally of a long-term character. This is particularly true with respect to income-producing property, for office buildings, hotels, and other property of this type must be kept in operation for many years to provide the funds out of which loans may be repaid. With respect to credit for home building and purchase, some institutions, it is true, have often made loans for periods of five years and even less, but generally they anticipated extending the maturities for many additional years. In the past decade, moreover, the original negotiation of home loans for periods of fifteen or twenty years or more has gained remarkable headway, in large part because of the policies of the federal agencies which operate in this field.

An essential feature of real-estate finance is the mortgage. When a loan is granted for the construction or purchase of urban real estate, the borrower is invariably required to give the lender a mortgage on the property as security. The borrower is known as the *mortgagor*, and the lender, as the *mortgagee*. The mortgagor's obligations usually include the duty to pay interest periodically, to pay the entire principal of the loan at a particular time or in installments periodically, to pay all property taxes and special assessments, to maintain the property in good condition, and to provide insurance. If the mortgagor defaults upon any of his "covenants" or obligations, the mortgage "bond"—which accompanies the mortgage and which is the mortgagor's promise to pay—immediately becomes due and payable; and the mortgagee may institute proceedings to foreclose upon the pledged property.

Although real-estate mortgages may be numbered at any time in the millions, they are not standardized, since each mortgage covers a specific piece of property. The investment qualities of an individual mortgage depend, not upon its face value primarily, but upon the appraised value of the underlying property, its location, its assessment for tax purposes, the character of the mortgagor, his income-earning capacity, and other factors. One cannot safely invest in mortgages with the same nonchalance that characterizes the policy of many who invest in stocks and bonds listed on the national security exchanges, for each mortgage requires individual analysis.

Because of the lack of standardization, it is impossible to maintain a market for mortgages similar to the nicely organized markets for basic commodities and securities. Most mortgages are for amounts too small to interest investors outside the communities in which they originate; hence the mortgagee must usually expect to carry the mortgage until its maturity—which may be extremely difficult and even hazardous in times of declining real-estate values. Some progress in widening the mortgage market, however, has been made by the federal home loan banks, by certain other federal agencies, and by some of the private mortgage companies.

BORROWERS, LENDERS, AND MIDDLEMEN

Little need be said regarding the borrowers in the field of real-estate finance. They include, on the one hand, the individuals who borrow a few thousand dollars to buy homes, as well as those who negotiate loans of a few hundred dollars for home modernization and repair; and, on the other, the corporations which sell stocks and bonds to the investing public to raise funds for the erection of great office buildings, hotels, and apartment buildings.

Many individual and institutional lenders are engaged in the field of real-estate finance. The principal institutional agencies of a specialized character are the savings and loan associations and several agencies of the federal government, including the federal home loan banks, the Federal National Mortgage Association, the RFC Mortgage Company, and the Federal Public

Housing Authority. In addition, commercial banks, savings banks, trust companies, mortgage companies, and insurance companies have long been interested in granting loans for the acquisition of urban property. (For the relative position of some of these institutions in home mortgage operations, see Table 58.) Another federal agency, the Federal Housing Administration, has been extremely important in the field; although it grants no loans, its services as insurer of real-estate loans have encouraged other institutions to provide funds in liberal amounts.

TABLE 58

OUTSTANDING MORTGAGE LOANS ON NONFARM DWELLINGS FOR ONE
TO FOUR FAMILIES, 1929-1944

(In millions of dollars)

Year	Total	Savings and loan associa- tions	Insur- ance companies	Mutual savings banks	Commer- cial banks	Home Owners' Loan Corpora- tion	Individ- uals and others ^a
1929	21,058	6,507	1,626	3,225	2,500	—	7,200
1930	21,259	6,402	1,732	3,300	2,425	—	7,400
1931	20,685	5,890	1,775	3,375	2,145	—	7,500
1932	19,242	5,148	1,724	3,375	1,995	—	7,000
1933	17,878	4,437	1,599	3,200	1,810	132	6,700
1934	17,857	3,710	1,379	3,000	1,189	2,379	6,200
1935	17,510	3,293	1,281	2,850	1,189	2,897	6,000
1936	17,225	3,237	1,245	2,750	1,230	2,763	6,000
1937	17,344	3,420	1,246	2,700	1,400	2,398	6,180
1938	17,646	3,555	1,320	2,670	1,600	2,169	6,332
1939	18,216	3,758	1,490	2,680	1,810	2,038	6,440
1940	19,103	4,084	1,758	2,700	2,095	1,956	6,510
1941	20,095	4,552	1,976	2,730	2,470	1,777	6,590
1942	19,908	4,556	2,255	2,700	2,480	1,567	6,350
1943	19,542	4,584	2,410	2,660	2,450	1,338	6,100
1944	19,528	4,799	2,458	2,570	2,410	1,091	6,200

^a Includes the trust departments of commercial banks, fiduciaries, real-estate bond companies, title and mortgage companies, philanthropic and educational institutions, fraternal organizations, construction companies, the RFC Mortgage Company, the Federal National Mortgage Association, etc.

Source: *Annual Report of the Federal Home Loan Bank Board*, 1941, p. 192, and *Federal Home Loan Bank Review*.

Although a large proportion of the mortgage loans granted in the United States are arranged by direct negotiations between borrowers and lenders, several types of middlemen function in the mortgage market. Real-estate agents or realtors are usually willing and anxious to close contracts of purchase and sale by assisting with the negotiation of mortgage loans. Mortgage brokers or agents are often employed by insurance companies in finding desirable mortgage investments, and sometimes commercial banks are similarly employed. Finally, lawyers often serve as middlemen in arranging mortgage loans between their clients and lending institutions.

Private Sources of Real-Estate Credit

SAVINGS AND LOAN ASSOCIATIONS

The most important institutional lenders in the field of urban real-estate finance, taken collectively, are the savings and loan associations. Such an association is a cooperative corporation chartered by the federal or a state government to encourage thrift and to assist members to acquire homes. Associations chartered by the federal government are designated savings and loan associations; state institutions are known variously as savings and loan associations, building and loan associations, homestead aid associations, cooperative banks, and building societies. In the following discussion, we may well use the single designation *savings and loan associations* to include all organizations of this kind, whatever they may actually be called in various localities.

The origin of savings and loan associations is traced to early societies established in England and Scotland in the last decade of the eighteenth century. The first American institution of this character was the Oxford Provident Building Association, which was established in an industrial suburb of Philadelphia in 1831. Growth in the United States at first was slow, and only about fifty associations were in operation in 1850; however, a rapid expansion in the number of associations began about 1885, the total reaching a peak of 5,838 in 1893. Other periods of expansion began about 1900 and following the First World War. The collapse in the real-estate market after 1929 occasioned the failure and suspension of many associations, and led to the inauguration of a program of assistance by the federal government. Statistics of the number of associations and their membership and assets for selected years since 1914 are presented in Table 59.

Theory of Operations.—Like all other kinds of banking institutions, savings and loan associations operate upon the principle of amassing the temporarily idle funds of the public—in this instance, the savings of their members—and of using the money so acquired in granting loans—in this instance, loans to members for the construction or purchase of dwellings.

Suppose that, in a certain community, two hundred individuals want to acquire homes either immediately or at some time in the near or remote future. If each of these individuals is able to save \$30 per month, probably fifteen years or more would be required (depending upon the rate of interest earned upon the savings) for each to acquire a home costing, say, \$6,000. Now, if the two hundred individuals pool their savings, it is obvious that some of them can acquire homes almost immediately, and with each passing year, others may be added to the list of home owners. Should the two hundred individuals form a savings and loan association and pool their monthly savings, \$6,000 would flow into the association at the end of the first month, and this sum could be used in making a loan to one of the members. At the end of the second month, an additional loan could be

made, and so on with each succeeding month. Thus twelve members would be able to acquire homes within the first year of the association's operation—homes for which they might otherwise have to wait fifteen years or more.

The borrowing members, of course, would continue to make monthly payments to the association, but now their contributions would not be savings, but rather installments upon the principal sums borrowed. They would

TABLE 59
NUMBER, MEMBERSHIP, AND ASSETS OF SAVINGS AND LOAN
ASSOCIATIONS, SELECTED YEARS, 1914-1945

Year	Number of associations	Membership (thousands)	Assets (millions of dollars)
1914	6,616	3,104	\$1,358
1917	7,269	3,839	1,769
1920	8,633	4,963	2,520
1923	10,744	7,203	3,943
1926	12,623	10,666	6,334
1929	12,342	12,111	8,695
1932	10,997	10,115	7,750
1934	10,919	8,370	6,450
1936	10,256	6,126	5,742
1937	9,768	6,233	5,712
1938	8,951	6,829	5,630
1939	8,328	6,500	5,674
1940	7,738	6,758	5,795
1941	7,207	6,978	6,053
1942	6,806	6,923	6,139
1943	6,511	7,136	6,593
1944	6,300	7,480	7,480
1945*	6,000	8,500	8,600

* Partially estimated.

Source: United States Savings and Loan League.

be required, moreover, to pay interest periodically upon the outstanding balances of their loans, and the interest received by the association, to the extent that it need not be devoted to the payment of operating expenses and the distribution of dividends to the savings members, would represent an additional source of funds out of which loan funds could be granted.

Although we assumed in the foregoing illustration the desire of all members to acquire homes with the financial assistance of the association, we must point out that many people become members of savings and loan associations without any thought of borrowing from them either immediately or in the future. Such members are willing to make periodical or occasional contributions to the associations because they want to share in the interest or dividends which the associations pay. In other words, people who do not want to borrow—perhaps they already own their homes—accumulate savings by buying shares in associations, just as they might save by opening deposit accounts with commercial or savings banks. Associations

invite the membership of savers, since their contributions increase the funds available for lending without increasing the immediate or future demand for loans.

Financial Operations.—Most of the loanable funds available to savings and loan associations are derived from the sale of their shares to members. Associations other than those chartered by the federal government commonly issue four types of shares, namely, *installment shares*, the subscribers to which make uniform payments known as “dues” at regular intervals; *full-paid shares* which are similar to the shares of industrial corporations; *prepaid shares* which are sold at an estimated “present value,” that is, a value which when increased by dividends will make the shares full-paid at maturity; and *optional shares* which are made available to subscribers who desire to make payments in irregular amounts and at such times as may be convenient rather than periodically. Installment and optional shares may be exchanged for full-paid shares when all payments have been made, or the maturity value may be drawn out in cash. The owners of full-paid shares may generally withdraw their savings at any time, although some associations assess a penalty on withdrawals for which a required notice is not given. Some associations charge initiation and withdrawal fees and assess “fines” for delinquent payments on installment shares.

To raise additional funds, savings and loan associations are permitted by the laws of the federal government and of most states to borrow from commercial banks and from other sources. In some states, associations are permitted to receive deposits, and thus they become active competitors of the commercial and savings banks.

Most of the resources of the associations are used in making residential mortgage loans to their members, although associations are also usually privileged to invest in government securities and in a few other types of securities. Home loans are customarily made upon a monthly amortization basis. In times past, a borrowing member was required to subscribe to installment shares in an amount equal to the loan negotiated; he then paid monthly interest on the loan and installments on the shares, and when the shares were fully paid, he could use them to retire the principal of the loan. The current practice, however, is to apply the monthly payments in excess of interest directly to the principal of the loan.

Members participate in the earnings of savings and loan associations according to the amount of their capital contributions and the time that the contributions were made. Before dividends are paid, however, it is customary to set aside a portion of the earnings in a reserve or surplus account.

Supervision and Control.—The shareholders of a savings and loan association, as its owners, have the power to direct its operations, although, as in the case of most kinds of corporations, they delegate their authority to directors whom they choose at annual meetings. A president and a cashier—and other officers, such as one or more vice-presidents, if the volume of

business warrants—are chosen by the directors to carry on the routine affairs of the association. A small association may operate more or less informally under the direction of the cashier, who may take care of its affairs in his own home or in an unpretentious rented office; however, most associations open small banking offices in the business districts of the communities which they serve.

State banking commissioners or superintendents are generally empowered to issue charters to savings and loan associations, and they are commonly charged with the responsibility of examining associations and requiring them to submit reports of condition. Regulations of law respecting the operations of associations vary markedly from state to state.

Federal Savings and Loan Associations.—The Home Owners' Loan Act of June 13, 1933, authorized the issuance of federal charters to newly organized savings and loan associations and to state associations which, with the consent of the respective state authorities, might request such charters. Charters are now issued by the Commissioner of the Federal Home Loan Bank Administration through the intermediary of the district federal home loan banks. In granting a charter to a newly formed association, the Commissioner must assure himself that the organizers of the association are of good character and responsibility; that the requirements as to subscriptions and payments of share capital have been fulfilled; that there is need of an association in the community in which the one proposed plans to operate; that there are reasonable prospects for its successful operation; and that its competition will not injure materially other associations already in operation.

Federal savings and loan associations occupy a position in the field of real-estate finance similar to that of the national banks in the commercial banking field. Like state-chartered associations, they have for their purpose the encouragement of saving and the extension of financial assistance to their members to enable them to obtain homes upon favorable terms. They sell two types of shares—*investment shares* which are full-paid in multiples of \$100, and *savings shares* which call for installment payments at regular or irregular intervals.

Federal associations are permitted by law to make loans to their members for the purchase or construction of homes and of other property which combines residential and business purposes. Loans on homes and combinations are limited to 80 per cent of the appraised value of the property, and loans on other types of approved real estate, to 50 per cent of the appraised value. Most loans are limited to a maximum of \$20,000 individually, and, territorially, to property located within fifty miles of an association's home office; however, as much as 15 per cent of an association's assets may be invested in larger loans and in loans beyond the fifty-mile limit. Loans are made for periods running from five to twenty years and are repayable in monthly installments, and loans beyond the twenty-year maximum may be granted if they are insured by the Federal Housing Administration. Rates

charged are determined by each association, but they must be "fair and reasonable."

The laws which govern the operations of federal savings and loan associations permit them to borrow an amount equal to 50 per cent of their share capital, but borrowing from sources other than the federal home loans banks is limited to an amount equal to 10 per cent of their share capital. Associations are not permitted to accept deposits or to issue certificates of indebtedness. The share capital of the federal associations has been augmented by subscriptions of the Treasury and of the Home Owners' Loan Corporation, which have been authorized to purchase investment shares in the amount of \$49,300,000 and \$300,000,000, respectively.¹

At the end of July, 1946, 1,473 federal associations, having combined assets of \$4,344,421,000 were in operation in all the states, the District of Columbia, and in the territories of Hawaii and Alaska.²

MORTGAGE COMPANIES

Of outstanding importance as sources of real-estate loans before the depression of the early 1930's were the mortgage companies. They were designed to make mortgage investments available to those who did not have the ability or the willingness to negotiate mortgage loans directly. In aiding borrowers, their function was to find markets for mortgages which, without their services, might have been difficult to sell.

In some instances, mortgage companies purchased mortgages and resold them in entirety to single investors; again, they purchased mortgages, deposited them with trustees, and then sold participations to numerous investors; and still again, they issued their own securities, such as mortgage collateral bonds and collateral trust certificates, and used the proceeds to purchase mortgages which were then deposited with trustees as security for their own outstanding obligations.

The functions of mortgage companies were soundly conceived, for they were able to relieve the investor of all the burdensome details involved in the original negotiation of mortgage loans; they were able to break down large mortgages into convenient investment units, and to combine many small mortgages in other convenient units; and they were able to offer the investor securities diversified as to quality, territory, and return.

To improve the marketability of their mortgage holdings or of their own security issues, as the case might be, most mortgage companies arranged for guaranties by independent or affiliated surety companies. A surety company, for a commission, would guarantee the payment of the principal and interest on the mortgages themselves, or the principal and interest on the securities issued by a mortgage company. The surety companies, however,

¹ At the end of June, 1946, the Treasury held shares in federal savings and loan associations valued at \$1,411,000, and the HOLC held \$23,653,000 of shares in both federal and state associations.—*Federal Home Loan Bank Review*, September, 1946, p. 384.

² *Federal Home Loan Bank Review*, September, 1946, p. 383.

greatly overextended themselves—they guaranteed payments of principal and interest in amounts far beyond their capacity to meet in the event of widespread defaults of the mortgage companies.

The collapse of the real-estate market incident to the depression undermined the position of the mortgage companies and destroyed their prestige, and at the same time threw most of the surety companies into receivership. Today, therefore, mortgage and surety companies are of only minor importance in the field of real-estate finance.

OTHER LENDERS

From the point of view of the total volume of urban mortgage holdings, among the most important suppliers of real-estate credit are individual lenders. Because of the small face value of the average mortgage and because of the limitations of mortgage markets, private investors usually find many opportunities to buy mortgages in their home communities. In the minds of many people of means, investment in real-estate mortgages represents a most desirable outlet for surplus funds. Such investors have the advantage, of course, of being able to examine the real estate offered as security and "to keep an eye upon it" as long as the mortgage is in their possession. Many mortgages come into the hands of individual lenders as an incident to the sale of property; they negotiate sales on terms which call for a cash payment and a mortgage for the balance of the sales price. Again, people frequently make loans to relatives and friends for home purchases and receive mortgages as security.

American life and fire insurance companies have long followed a policy of investing heavily in urban real-estate mortgages. Such investments are favored especially by life insurance companies, because the earnings are generally larger than those received on the stocks and bonds which they are permitted by state law to purchase. In extending real-estate loans, life insurance companies, because of legal restrictions, usually observe a more conservative policy than do the fire insurance companies.

The legal restrictions which limit the investment of savings banks and trust companies have generally made the purchase of urban real-estate mortgages even more attractive to them than to the life insurance companies. The meager income to be derived from the purchase of many of the securities found in the "legal lists" has prompted the officers of many such institutions to place an extremely large proportion of their resources in mortgages. Although the collapse in the real-estate market in the early 1930's gave rise to misgivings as to the soundness of this policy, the insurance of mortgages by the Federal Housing Administration has tended to resolve all doubts.

As an aspect of their expansion into many fields of finance, the commercial banks have in recent years increased their investments in urban real-estate mortgages. This change in investment policy has resulted to a

large extent from the decline in the demand for short-term productive loans, and, too, it has been encouraged by FHA mortgage insurance.

The Expansion of Federal Facilities of Real-Estate Credit

The inadequacy of private sources of real-estate credit has led to the establishment of a group of federal corporations and agencies to assist in financing the construction and acquisition of homes and other property. The program of federal assistance was inaugurated in 1932 with two enactments: the Reconstruction Finance Corporation Act of January 21 authorized the RFC to make secured loans to savings and loan associations, mortgage companies, insurance companies, and other mortgage-holding institutions; and the Federal Home Loan Bank Act of July 22 established a system of banks authorized to make loans on the security of mortgages tendered by other institutions.

In the following year, the Home Owners' Loan Act of June 13 created the Home Owners' Loan Corporation for the purpose of assisting home mortgagors to refinance their obligations in order to avoid foreclosure. It also provided for the organization of federal savings and loan associations. The National Housing Act of June 27, 1934, established two additional agencies of great importance—the Federal Housing Administration and the Federal Savings and Loan Insurance Corporation. The first of these was to promote, by means of a system of mortgage insurance, the liberal extension of loans for home modernization and construction by private financial institutions; the latter was to strengthen the position of savings and loan associations by giving protection to the share accounts of their members. Another important agency, the United States Housing Authority, was established by the United States Housing Act of September 1, 1937, to assist state governments and their political subdivisions to undertake low-cost housing projects.

Many other federal acts affecting real-estate finance have been passed in recent years by Congress, but it is unnecessary to account for all of them in detail. Amendments which have been added from time to time have, on the whole, liberalized the provision of earlier statutes. Beginning in 1941, the federal real-estate credit agencies were compelled to sidetrack their peacetime objectives and to convert their facilities to the development of "defense housing" and "war housing" in communities suffering from overcrowding because of the expansion of industries producing war materials. With the cessation of hostilities and the return of millions of servicemen, many of whom desired immediately to establish independent households, the housing shortage in many localities became even more acute than it had been during the war years; thus a heavy demand for the services of the federal agencies, it now appears, is likely to continue for many years.

The volume of operations of the federal agencies is indicated by the data presented in Table 60.

NATIONAL HOUSING AGENCY

To coordinate the activities of the many federal organizations concerned with real-estate finance, President Roosevelt, by an executive order dated February 24, 1942, created a new National Housing Agency, and transferred to it the powers, records, and property of most of the existing federal corporations and agencies engaged in the field. As it now operates, the agency comprises three major units—the Federal Home Loan Bank Administration,

TABLE 60
OUTSTANDING LOANS OF FEDERAL REAL-ESTATE CREDIT AGENCIES,
1933-1946
(In millions of dollars)

June 30	Home Owners' Loan Corporation	Federal home loan banks	RFC Mortgage Company	Federal National Mortgage Association	Federal Public Housing Authority
1933	—	47	—	—	—
1934	1,217	85	—	—	—
1935	2,658	79	—	—	—
1936	2,945	119	18	—	—
1937	2,556	167	49	—	—
1938	2,265	196	41	38	13
1939	2,081	169	57	125	68
1940	2,013	157	60	163	87
1941	1,870	170	65	194	316
1942	1,676	193	82	216	384
1943	1,441	90	98	73	317
1944	1,220	128	114	60	310
1945	965	132	58	10	290
1946	735	203	20	7	280

Source: *Federal Reserve Bulletin*.

the Federal Housing Administration, and the Federal Public Housing Authority. Its far-flung activities are supervised by an administrator who is appointed by the President with the advice and consent of the Senate.

The Federal Home Loan Bank Administration

FEDERAL HOME LOAN BANKS

The Federal Home Loan Bank Act of July 22, 1932, authorized the division of the United States into eight to twelve districts, in each of which a federal home loan bank was to be located. The new organizations were designed as institutions of rediscount in the field of real-estate finance with functions analogous to those of the federal reserve banks in the field of com-

mercial banking. Twelve districts were demarcated, and a home loan bank was opened in a principal city of each district. In March, 1946, however, the Los Angeles and the Portland institutions were combined to form the Federal Home Loan Bank of San Francisco, so that only eleven banks now remain in operation.

The original legislation placed general supervision of the system in a Federal Home Loan Bank Board consisting of five members chosen for six-year terms by the President with the advice and consent of the Senate. Subsequently, the board was given additional duties as the board of directors of the Home Owners' Loan Corporation and as the board of trustees of the Federal Savings and Loan Insurance Corporation. The President's executive order of February 24, 1942, however, abolished the board and transferred its powers to the Commissioner of the Federal Home Loan Bank Administration. The chairman of the defunct board became the first commissioner.

Powers of the Commissioner.—As successor of the board, the Commissioner of the Federal Home Loan Bank Administration received many powers of supervision in connection with the activities of the federal home loan banks and their member organizations. With regard to the home loan banks, he has the authority (1) to name four of the twelve directors of each bank, (2) to provide for their periodical examination, (3) to set down rules and regulations to govern their loans to members, (4) to approve interest rates charged by them, (5) to approve their issues of bonds, debentures, and other debt instruments, (6) to assess them for contributions to meet the expenses of the Federal Home Loan Bank Administration, and (7) to adjust the boundaries of the home loan bank districts.

Respecting the operations of member institutions of the Federal Home Loan Bank System, the Commissioner is empowered (1) to issue charters to federal savings and loan associations, and to supervise their activities, (2) to admit state institutions, such as savings and loan associations, mutual savings banks, and insurance companies, to membership, (3) to suspend and liquidate federal savings and loan associations for violations of the law or because of insolvency, (4) to expel state member institutions for violations of the law or for unsound financial practices, and (5) to examine all member institutions, and to assess the expenses of examinations against them.

Management of the Home Loan Banks.—Each federal home loan bank is supervised by a board of twelve directors, of whom four, as was mentioned, are chosen by the Commissioner of the Federal Home Loan Bank Administration. These four directors have four-year terms. The remaining eight directors, who have two-year terms, are elected by the member institutions. The member institutions are classified in three groups according to size, and each group chooses two directors, leaving two directors to be chosen at large by all member institutions.

The Commissioner designates one of his appointees as the chairman of

the board and a second as the vice-chairman, while the bank's board itself chooses an experienced banker as president. The president is the chief executive officer of the bank.

Capital and Other Sources of Funds.—The minimum capital for each federal home loan bank was originally set at \$5,000,000. It was anticipated that in the course of time all the capital would be supplied by member institutions, but to launch the banks the Treasury was authorized to purchase a total of \$125,000,000 of the stock of the twelve banks combined. A treasury subscription of approximately that amount was made, but the stock was subsequently transferred to the Reconstruction Finance Corporation.

Member institutions are required to subscribe to the stock of the federal home loan banks of their respective districts in an amount equal to 1 per cent of the unpaid principal of their home mortgage loans. The minimum subscription is \$500. A member institution which is not permitted by state law to own stock may retain its membership by making a deposit with the home loan bank equivalent in amount to the required stock subscription. The stock of the home loan banks is not subject to double liability and is otherwise nonassessable. At the time of the opening of the twelve banks, the stock holdings of member institutions amounted to only \$9,000,000, but they had grown to \$79,600,000 by June 30, 1946.³

Each home loan bank is required to set aside 20 per cent of its earnings semiannually to accumulate a surplus account or reserve equal to its paid-in capital; when this has been accomplished, only 5 per cent of the net earnings are to be so segregated.

As additional sources of funds, the home loan banks may receive deposits and issue bonds, debentures, and other obligations. Member institutions may keep both demand and time deposits with the home loan banks; the banks may make deposits with one another; and the Treasury and other federal agencies may use the home loan banks as depositories. With the approval of the Commissioner, any of the home loan banks may issue bonds and other evidences of indebtedness, although it is customary for the Commissioner to issue consolidated debentures as the joint and several obligations of the twelve banks. These are secured and bear interest as prescribed by the Commissioner. Obligations of the home loan banks, although not guaranteed as to principal or interest by the federal government, are generally regarded as securities of excellent investment quality.

Membership in the Home Loan Bank System.—All federal savings and loan associations are required to be members of the federal home loan bank of their respective districts; and state-chartered institutions engaged in the field of real-estate mortgage finance, including savings and loan associations, savings banks, and insurance companies, may be admitted to membership on a voluntary basis if they are able to satisfy the requirements. Criteria according to which state-chartered institutions are admitted or are denied

³ *Treasury Bulletin*, October, 1946, p. 68.

admission include the following: (1) the status of the institution under the laws of the state in which it operates, (2) its financial condition, (3) the competency and integrity of its management, and (4) its operating policies respecting loans, amortization, interest charges, and similar matters. The growth of membership is summarized in Table 61.

A federal savings and loan association is not permitted to withdraw from the Federal Home Loan Bank System unless it is willing to surrender its federal charter; but a state-chartered institution may withdraw upon six

TABLE 61
MEMBERSHIP IN THE FEDERAL HOME LOAN BANK SYSTEM, 1935-1946
(Dollar amounts in millions)

Junc 30	Federal savings and loan associations		State savings and loan associations		Mutual savings banks		Insurance companies	
	Number	Assets	Number	Assets	Number	Assets	Number	Assets
1935	812	\$ 325	2,500	\$2,722	9	\$139	3	\$ 15
1936	1,115	657	2,513	2,422	8	154	4	17
1937	1,281	986	2,585	2,484	8	163	12	174
1938	1,337	1,213	2,572	2,487	9	203	38	405
1939	1,380	1,440	2,517	2,496	9	202	40	462
1940	1,421	1,726	2,444	2,507	11	213	38	481
1941	1,452	2,028	2,346	2,599	12	252	29	408
1942	1,464	2,206	2,308	2,679	17	341	26	418
1943	1,468	2,426	2,261	2,823	22	429	23	367
1944	1,465	2,881	2,206	3,081	22	464	21	414
1945	1,465	3,528	2,191	3,486	25	567	15	390
1946	1,472	4,312	2,188	4,047	25	630	14	455

Source: *Annual Reports of the Federal Home Loan Bank Board and Federal Home Loan Bank Review.*

months' notice to the Commissioner. A federal association, on the other hand, may be placed in receivership by the Commissioner for violations of law or by reason of insolvency; and a state-chartered member may be expelled for the same reasons.

Loans and Investments of the Home Loan Banks.—Like the federal reserve banks, the federal home loan banks were designed as "bankers' banks"; as such, they do not lend direct to home owners and to other individual mortgagors. They are authorized to grant both long- and short-term loans to their member institutions upon such terms as are approved by the Commissioner.

Long-term advances, which are made for periods not exceeding ten years, must be secured by mortgages upon residential property, by direct obligations of the United States, or by obligations fully guaranteed by the United States. The member institution which borrows also pledges as addi-

tional security its stock in the home loan bank. Long-term advances generally provide for installment repayments monthly or quarterly during the life of the loans. With respect to such secured loans, the home loan banks may advance up to 50 per cent of the unpaid principal of home mortgage loans, up to 90 per cent of the unpaid principal of mortgages insured by the Federal Housing Administration, and up to the face value of direct and guaranteed obligations of the United States government. Certain types of mortgages are unacceptable as security for advances unless insured by the FHA: mortgages whose maturity is beyond twenty years, those placed on dwellings designed for more than four families, and those that are more than six months past due.

The federal home loan banks may grant two types of unsecured short-term advances. Member institutions whose outstanding liabilities, other than obligations due the home loan banks, do not exceed 5 per cent of their assets are qualified to borrow upon their unsecured promissory notes for periods not exceeding one year; other member institutions whose liabilities are greater than the stipulated percentage may borrow upon their unsecured promissory notes for periods not exceeding thirty days. Both of these types of short-term advances must be paid off in cash or refunded as secured loans at maturity.

HOME OWNERS' LOAN CORPORATION

Because of the inability of the newly established federal home loan banks adequately to cope with the crisis in the residential mortgage market in 1932 and 1933, the Home Owners' Loan Corporation was established by legislation adopted on June 13, 1933. Although the home loan banks had been given emergency power to make direct loans to home owners to save them from foreclosure, they could not expand their facilities rapidly enough to bring relief to the tens of thousands of home owners who had already defaulted upon their mortgage obligations or who were facing default.

The capital stock of the HOLC in the amount of \$200,000,000 was subscribed by the Secretary of the Treasury on behalf of the federal government, and the HOLC was authorized by successive enactments to issue bonds in the total amount of \$4,750,000,000. At first, the bonds were guaranteed only as to the interest by the Treasury, but an amendment of April, 1934, extended the guaranty to the principal.

The HOLC was empowered to assist home owners to refinance existing mortgages, to recover property already foreclosed, to pay taxes, assessments, and other debts outstanding against residential property, and to repair and renovate homes in a state of deterioration. The refinancing operations were for the most part accomplished simply by the exchange of HOLC bonds for existing mortgages. Most mortgagees were quite willing to exchange the doubtful obligations they held for securities guaranteed by the federal government. When mortgagees refused to cooperate, the HOLC usually con-

sented to pay them off in cash, provided that the payment did not exceed 40 per cent of the appraised value of the property involved. Advances to pay taxes, to make repairs, and for similar purposes were normally granted in cash.

The lending authority of the HOLC expired on June 12, 1936. In the preceding three years, it had granted loans totaling \$3,093,451,000 to 1,017,823 borrowers. Since the expiration of its period of active lending, the HOLC has been engaged primarily in collecting interest and principal upon its outstanding loans and in selling the property upon which it has been forced to foreclose. As funds are accumulated by collections and by the sale of foreclosed property, the HOLC retires its outstanding bonds.

FEDERAL SAVINGS AND LOAN INSURANCE CORPORATION

To encourage investment by the general public in the shares of savings and loan associations, the federal government, in the National Housing Act of June 27, 1934, inaugurated a plan for the insurance of such shares. Because the functions of savings and loan associations differ materially from those of commercial and savings banks, insurance of the variety administered by the Federal Deposit Insurance Corporation was not extended, but instead a separate agency, the Federal Savings and Loan Insurance Corporation, was established. Originally, the members of the Federal Home Loan Bank Board were made ex officio trustees of the FSLIC, but by the President's executive order of February 24, 1942, the FSLIC was integrated in the newly formed National Housing Agency, and it now comes under the direct jurisdiction of the Commissioner of the Federal Home Loan Bank Administration.

The entire capital stock of the FSLIC in the amount of \$100,000,000 was purchased by the Home Owners' Loan Corporation by an exchange of its bonds of equal par value. The stock pays cumulative dividends equivalent to the rate of interest on the bonds. Should it stand in need of cash, the FSLIC may sell the HOLC bonds, or it may issue its own notes, debentures, and bonds.

The management of the FSLIC is centered in the executive offices in Washington, and regional administration is customarily exercised through the officers of the federal home loan banks.

Insured Associations.—All federal savings and loan associations are required to insure their shareholders' accounts with the FSLIC, and state-chartered associations may be admitted as insured institutions if they are able to satisfy the FSLIC's standards relative to sound financial condition, adequate earning power, competent management, and reasonably conservative lending and dividend policies.

Each insured association is required to pay an admission fee amounting to 1/25 of 1 per cent of its liabilities, as well as a semiannual assessment of 1/16 of 1 per cent of its liabilities. The FSLIC is authorized to levy an additional assessment of 1/8 of 1 per cent in any year if necessary to meet

its operating expenses and losses, but thus far extra assessments have not been necessary. The regular semiannual assessments are to be continued until the FSLIC has accumulated a reserve equal to 5 per cent of the liabilities of all insured associations; when this has been accomplished, assessments will be discontinued, only to be resumed when the reserve falls below 5 per cent. In view of the fact that many insured associations have been paying assessments for many years, newly admitted associations are now required to make lump-sum payments which are estimated to be a fair contribution to the accumulated reserve.

The account of each shareholder of an insured association is insured by the FSLIC to the amount of \$5,000. If an insured association is placed in liquidation, the shareholder may elect to receive a new insured account in another solvent association, or to have his account paid off. If he chooses the latter alternative, he receives an immediate cash payment of 10 per cent of his account, one-year non-interest-bearing debentures of the FSLIC for 45 per cent of the account, and three-year non-interest-bearing debentures for the remaining 45 per cent.

Insurance may be terminated by action of the FSLIC or of the insured associations themselves. State-chartered associations may withdraw voluntarily upon written notice of ninety days, but they are required to inform their shareholders of the termination of insurance. The insurance protection expires after the ninety days have elapsed, but the withdrawing associations must continue to pay assessments for three years. Federal savings and loan associations may not voluntarily withdraw without also surrendering their federal charters. On its part, the FSLIC may terminate the insurance of any association for violations of the law or regulations, but, when this is done, accounts remain insured for five years, and the expelled association must continue to pay assessments for that period.

At the end of July, 1946, a total of 2,493 savings and loan associations were insured by the FSLIC; of these, 1,473 were federal associations, and 1,020 were state-chartered institutions.⁴

Supervisory Authority of the FSLIC.—Besides having the authority to pass upon the admission of state-chartered associations and to expel associations for illegal practices, the FSLIC is empowered to exercise general supervision over insured associations. It requires each association to make an annual report of condition, and subjects it to examination at least once a year, although it may accept as sufficient a report of the examination of a state regulatory body. Additionally, the FSLIC has the power to enforce rules and regulations affecting the financial policies of insured associations.

Like the Federal Deposit Insurance Corporation, the FSLIC has many powers which enable it to intervene to prevent the failure of insured associations, as well as to rehabilitate associations which have already failed. In this respect, it may make loans and contributions to threatened associations,

⁴ *Federal Home Loan Bank Review*, September, 1946, p. 383.

purchase their assets, or arrange their merger with sound associations. It acts as receiver or conservator for all failed federal savings and loan associations, and may accept appointment as receiver or conservator of failed state associations.

The Federal Housing Administration

Probably the most important agency of the federal government in operation in the field of real-estate finance is the Federal Housing Administration. Though not a dispenser of loans, the FHA has been highly significant, because its insurance of the mortgages held by privately owned financial institutions has released for home purchase and home construction huge sums of investment capital which otherwise would very likely have been withheld from the real-estate field; because its operations have, in a certain sense, revolutionized the financing of home mortgages, particularly with respect to interest rates, the term of payment, and the policy of periodical amortization; and because its standards, which must be satisfied before insurance is granted, have done much to improve methods of construction, the quality of construction, and the planning of residential districts.

The FHA was created by the National Housing Act of June 27, 1934, and was placed under the general supervision of an administrator appointed by the President with the advice and consent of the Senate. The President's executive order of February 24, 1942, made little change in the structure and functions of the FHA. It merely became a principal constituent unit of the National Housing Agency, and the former administrator became the Commissioner of the Federal Housing Administration.

SCOPE OF FHA INSURANCE

Insurance of Modernization Loans.—Under Title I of the National Housing Act, the FHA is authorized to insure eligible lending agencies—such as commercial and savings banks, mortgage companies, savings and loan associations, and sales finance companies—against losses on loans made for the repair, alteration, and improvement of residential property occupied by the owners or by lessees whose leases extend beyond the period of the loans. The insurance of loans of moderate size for new construction, such as small homes and farm buildings, is also permitted under this title. The volume of loans insured by the FHA under Title I as well as under other titles of the National Housing Act is indicated by the data of Table 62.

Loans eligible for insurance include those of \$5,000 or less for the repair, alteration, and improvement of dwellings designed for more than one family; those of \$2,500 or less for the improvement of other existing structures; and those of \$3,000 or less for new construction. Eligibility is also limited with respect to the term of loans, the maximum maturity ranging from approximately three years to twenty-five years, depending upon the

purpose of the loans. All loans must provide for repayment in weekly, bimonthly, monthly, or seasonal installments.

The insured lending institution must pay the FHA an insurance premium of .75 per cent of the net proceeds of its loans for all purposes except for new residential construction, for which the premium is only .5 per cent. The lending institution is then insured to the amount of 10 per cent of its total loans under Title I. Thus a bank which had granted \$100,000 of insured Title I loans within a specific period designated by the FHA would be fully reimbursed if its losses were less than \$10,000, but it would be reimbursed only to the amount of \$10,000 were its losses to exceed that figure.

TABLE 62

VOLUME OF LOANS INSURED BY THE FEDERAL HOUSING ADMINISTRATION,
1934-1945

(In millions of dollars)

Year	Total	Property improve- ment (Title I)	New small home con- struction (Title I)	Home mortgages (Title II)	Rental and group housing (Title II)	War housing (Title VI)
1934	30	30	—	—	—	—
1935	320	224	—	94	2	—
1936	557	246	—	309	2	—
1937	495	60	—	424	11	—
1938	694	160	13	473	48	—
1939	954	208	25	669	51	—
1940	1,026	251	26	736	13	—
1941	1,186	262	21	877	13	13
1942	1,137	141	15	691	6	284
1943	942	96	1	243	—	601
1944	886	125	—	216	7	537
1945	684	189	—	219	3	272

Source: Federal Reserve Bulletin.

Mutual Mortgage Insurance.—The principal activities of the FHA have been concerned with the insurance of mortgage loans granted for the construction and purchase of residential property designed for not more than four families. Such insurance is provided according to the terms of Title II of the National Housing Act. To be acceptable under Title II, mortgages must be offered for insurance by "eligible" financial institutions, and they must be first liens upon property which is subject to no other liens and encumbrances. Three types of mortgage loans are insurable: those of \$5,400 or less for the construction of single-family dwellings to be occupied by the respective owners, and not exceeding 90 per cent of the appraised value of the property; those of \$8,600 or less for the construction of single-family dwellings to be occupied by the owners, provided that the loans do not exceed 90 per cent of the appraised value of the property up to \$6,000, and

80 per cent of the value in excess of \$6,000; and those of \$16,000 or less on property—which need not be newly constructed or occupied by the owners—designed for not more than four families, provided that the loans do not exceed 80 per cent of the appraised value of the property. Insurable loans of the first type may run from four to twenty-five years, and of the second and third types, from four to twenty years.

All loans must provide for monthly installment payments covering interest, amortization of principal, taxes, special assessments, and insurance. The maximum rate of interest which the insured lending institution may charge the borrower is 4.5 per cent per annum, but the FHA insurance premium may be passed on to the borrower as an additional charge. The insurance premium amounts to .5 per cent of the average outstanding principal of the insured mortgage loan. The premiums are paid into the Mutual Mortgage Insurance Fund, out of which claims on account of losses on insured mortgages are paid.

Housing Insurance.—Under Title II of the National Housing Act, the FHA is also authorized to insure mortgage loans granted by private financial institutions and by federal and state governmental agencies for the construction of multifamily housing projects. The construction agency (mortgagor) may be a private corporation or a governmental agency. To be eligible for insurance, an individual loan must not exceed 80 per cent of the estimated valuation of the completed project, and in no case may it exceed \$5,000,000. Only first mortgages are acceptable for insurance, and the mortgaged property must be clear of all other liens. The project, moreover, must be “economically sound.”

The maturity of loans granted for the construction of housing projects must be approved by the Commissioner of the FHA. The rate of interest charged the mortgagors must not exceed 4 per cent per annum on the outstanding principal on large-scale projects, and 4.5 per cent on small-scale projects. Insured lending institutions must pay annual insurance premiums of .5 per cent of the outstanding principal of their loans, and the premiums are accumulated in the Housing Insurance Fund to meet claims which arise because of defaults.

War Housing Insurance.—With the coming of the national defense and war emergencies, a critical need of dwellings in vital war-production areas was early recognized, and the FHA, by an amendment to the National Housing Act of March 28, 1941, was authorized to provide special war housing insurance (originally “defense” housing insurance) for residential construction in such areas. Throughout the period immediately preceding and during our participation as a belligerent in the Second World War, virtually all loans for new construction insured by the FHA were negotiated according to the terms of the amendment (Title VI of the National Housing Act). Insurance for loans under Title II, however, remained available in connection with the purchase of existing dwellings and housing projects and

the refinancing of mortgages upon such property. The work of the FHA under Title VI, of course, was not materially dissimilar from its operations under Title II; however, the following differences in the scope of the two titles may be mentioned: loans insurable under Title VI, unlike those coming under Title II, could be granted to persons and firms, such as lumber companies and realty corporations, which were constructing residential property to be sold or rented to others—such persons and firms, however, had to grant occupancy priority to war workers; all loans coming within the scope of Title VI could be insured if they did not exceed 90 per cent of the appraised value of the mortgaged property, while under Title II, only loans not exceeding \$5,400 are insurable to 90 per cent of appraised value; and loans for large-scale housing developments could be insured under Title VI even though the FHA might not find such developments to be “economically sound”—the standard here, instead, was that each project represent “an acceptable risk in view of the war emergency.”

FINANCES OF THE FHA

As the FHA does not engage directly in granting loans, it requires funds only to meet its overhead expenses and to pay claims upon insured mortgages which have been defaulted. Premiums received for the insurance of modernization loans and loans for new small-scale construction (Title I) are deposited in a special account with the Treasury and are available to meet administrative expenses and claims incident to Title I activities. Premiums received under Title II are placed in the Mutual Mortgage Insurance Fund and the Housing Insurance Fund respectively, and those received under Title VI, in the War Housing Insurance Fund; so segregated, all such premiums are likewise available to meet expenses and claims. The Treasury made an initial contribution of \$10,000,000 to the Mutual Mortgage Insurance Fund, and the Reconstruction Finance Corporation is authorized to make additional advances to further the work of the FHA.

Upon the default of a loan insured under Title I of the National Housing Act, the lending institution has the choice of several methods of procedure. Essentially, however, it assigns its rights against the borrower to the FHA and is paid off from the fund accumulated from the premiums received by the FHA on Title I insurance. In the case of insured loans upon one-, two-, three-, and four-family dwellings under Titles II and VI, it is necessary for the lending institution, upon default of the borrower, to obtain title to the mortgaged property either through foreclosure proceedings or through any other procedure which the FHA may approve. The title to the property is then transferred to the FHA in exchange for its debentures of a face value equal to the unpaid balance of the insured loan. For a defaulted loan upon a housing project, the lending institution has the choice of acquiring title and transferring it to the FHA or of merely assigning its

rights in the mortgage to the FHA; in either instance, it receives debentures of the FHA in exchange.

All debentures of the FHA bear interest at a rate of 2.75 per cent per annum, carry a guaranty of the United States as to principal and interest, and represent a first lien upon the Mutual Mortgage Insurance Fund, the Housing Insurance Fund, or the War Housing Insurance Fund, as the case may be. They mature three years after the date that the loan would have matured had it not been defaulted.

Besides its allotment of debentures, a financial institution having a defaulted mortgage receives a certificate of claim covering foreclosure and other expenses. Such certificates are paid off by the FHA if the proceeds of the sale of the foreclosed property so warrant; otherwise, they remain unredeemed.

The Federal Public Housing Authority

The Federal Public Housing Authority is the third principal constituent of the National Housing Agency. In it were consolidated several federal agencies which formerly operated independently in using public funds for residential construction. Many of these agencies had been created haphazardly to supply dwellings in vital war-production areas, and, because of a lack of coordination in administration, they tended to work at cross-purposes and to confuse the situation in wartime housing. The Defense Homes Corporation was established as a subsidiary of the RFC in the fall of 1940 to build homes of a permanent character in war-production areas and in Army and Navy training bases; a Mutual Ownership Defense Housing Division was set up in the Federal Works Agency to construct in war-production areas communities of permanent homes to be owned by mutual corporations until fully paid for by the tenant-buyers; the Public Buildings Administration developed housing projects for married enlisted men and civilian employees of the Army; the Farm Security Administration made loans for home construction in war-production areas and for the resettlement of farm families displaced from such areas; and so on with other agencies. The housing functions of all these organizations, and of the United States Housing Authority, were unified in the Federal Public Housing Authority.

The most significant work of the Federal Public Housing Authority originates in connection with its duties and responsibilities as successor of the United States Housing Authority. The latter agency was established by the United States Housing Act of September 1, 1937. In fulfilling the functions of the USHA, the Federal Public Housing Authority is empowered to assist state governments and their political subdivisions to eliminate slums and to develop low-cost, low-rent housing projects for people of small income, its assistance taking the form of loans and grants to local housing authorities which are organized as public corporations. The local housing

authorities may apply to the FPHA for the funds required for the development of projects, and the FPHA may extend loans up to 90 per cent of the estimated cost of the projects, secured in any manner thought adequate. The remaining 10 per cent of the cost of projects must be provided locally. Maturities may be as long as sixty years. To assist the local housing authorities to keep rentals moderate, the FPHA is permitted to enter into contracts wherein it agrees to make outright grants in cash annually during the period that its loans are outstanding; total grants, however, must not exceed \$28,000,000 per year. Local housing authorities which are eligible to receive such grants from the FPHA must be able to supplement them by annual contributions at least one fifth as large, either in cash or as tax exemptions or remissions.

INDEX



INDEX

- Abrogation of gold clause, 74
- Acceptance credits, 189, 269-271, 486-494
- Acceptance dealers, 272, 473
- Acceptance market, 271-272
- Acceptance rates, 267
- Acceptances. *See* Bankers' acceptances, Trade acceptances
- Accommodation party, 256
- Accounts receivable
 - in credit analysis, 260-261
 - discount and purchase by sales finance companies, 587-588
 - as security for bank loans, 257
- Advances. *See* Federal reserve banks—discounts and advances of
- Affiliates of commercial banks
 - foreign banking, 286
 - investment, 156, 288-289
 - loans to, 263
 - real-estate, 286
 - safe-deposit, 286
- Agricultural Adjustment Act of 1933. *See* "Inflation Amendment"
- Agricultural Adjustment Act of 1938, 653
- Agricultural Adjustment Administration, 652-654
- Agricultural banks. *See* Farm credit, Farm Credit Administration, etc.
- Agricultural credit. *See* Farm credit
- Agricultural Credits Act of 1923, 356 *n.*
- Agricultural Marketing Act revolving fund, 639
- Aldrich bill for central bank, 329-330
- Aldrich-Vreeland Act of 1908, 301, 329
- American Bankers Association
 - "code of fair competition" of, 193
 - proposal of convention of 1893, 327
 - proposals concerning International Fund and Bank, 559
- American Express Company
 - international money orders of, 485
 - travelers' checks of, 484
- Arbitrage. *See* Exchange arbitrage
- Authority to purchase, 496
- Availability schedules
 - influence upon commercial bank primary reserves, 233
- Availability schedules (*continued*)
 - use in federal reserve clearing operations, 125
- Balance of international payments, 478-480
- Balance-of-payments theory of exchange rates, 511
- Balance sheet
 - analysis in bank lending, 260-261
 - of federal reserve banks, 366-369
 - of Reconstruction Finance Corporation, 571
 - See also* Bank statements
- Bank, 87-88
- Bank credit
 - expansion and contraction of, 132-133, 221-244
 - importance of, 94-95
 - nature of, 93
- Bank demand deposits. *See* Demand deposits
- Bank deposits. *See* Demand deposits, Time deposits
- Bank drafts
 - domestic, 118
 - international, 482
- Bank earnings, 193-198
- Bank examinations
 - procedure in, 166
 - purposes of, 162-163
 - types of, 163-165
- Bank management. *See* Commercial banks—directors of, Federal reserve banks—directors of, etc.
- Bank notes
 - as credit money, 19
 - definition of, 101
 - development as money, 13-14
 - elasticity of
 - emergency, 105-106, 353 *n.*
 - seasonal, 104-105
 - government guaranty of, 104
 - history of in United States, 106-109
 - as legal tender, 55, 102-103
 - limitations upon supply of, 103-104
 - parity of, 102-104
 - redeemability of, 102
 - safety of, 102 *n.*
 - as standard money, 20, 55

Bank notes (*continued*)

See also Federal reserve bank notes, Federal reserve notes, National banks—notes of, etc.

- Bank of Canada, 315, 324
- Bank of England, 320-322, 324, 325, 326
- Bank of France, 317, 322, 324
- Bank of Massachusetts, 291
- Bank of the Netherlands, 322-323
- Bank of New York, 291
- Bank of North America, 290-291
- Bank of Norway, 323, 326
- Bank of the United States (first)
 - branches of, 292
 - charter provisions of, 291-292
 - closing of, 293
 - establishment of, 291
 - notes of, 106, 292-293
 - operations of, 292-293
- Bank of the United States (second)
 - career of, 294-295
 - charter provisions of, 294
 - need for, 293-294
 - notes of, 106, 294
 - rechartering controversy concerning, 295-296

Bank reports, 166-167

Bank reserves. See Reserves

Bank statements

analysis of accounts in, 185-192, 193-196

illustrations of, 187, 194

nature of, 185, 193

Bank suspensions, 304, 307, 311

Bank time deposits. See Time deposits

Bankers' acceptances

in bank statement, 189

features of, 488-489

institutions creating, 271

nature of, 269

statistics of discount rates on, 267

use of illustrated

in creating dollar exchange, 492-493

in export transactions, 489-490

in import transactions, 269-271, 487-488, 490-492

volume of, 269, 275

Bankers' sight drafts, 482, 485 *n.*

Banking Act of 1933

adoption of, 306

provisions concerning

branch banking, 150-151, 307

call loans, 277

capital requirements of national banks, 307

deposit insurance, 173, 307, 336

direct action of federal reserve authorities, 450

Banking Act of 1933 (*continued*)

provisions concerning (*continued*)

double-liability feature of bank stock, 142, 308

Federal Open Market Committee, 308, 309, 333

group banking, 157, 308

interest on deposits, 307

investment regulation of state member banks, 285, 287

membership of mutual savings and industrial banks, 307, 605

powers of Federal Reserve Board, 308

underwriting by member banks, 288-289, 308

Banking Act of 1935

adoption of, 308

provisions concerning

branch banking, 150-151

deposit insurance, 173, 309

discounts and advances of federal reserve banks, 349, 351, 352

double-liability feature of bank stock, 142, 309

establishment and powers of Board of Governors, 309

executive officers of federal reserve banks, 309, 337

Federal Open Market Committee, 309, 333

group banking, 157

interest on deposits of Postal Savings System, 609

member bank reserves, 215, 218 *n.*, 444-445

surplus of national banks, 309

purposes of, 308-309

Banking holiday of 1933, 72-73, 305-306

Banks

characteristics of, 87-89

classification of, 89-91

definition of, 87-88

See also Commercial banks, Commercial banking, Federal reserve banks, National banks, etc.

Banks for cooperatives

establishment of, 566, 651

life of, 568

loans of

scope of, 651-652

statistics of, 568, 645

organization of, 651

plan of cooperative ownership of, 570

sources of funds of, 652

Barter, 6

Bill brokers, 473

Bills of exchange

as credit instruments, 96

See also Bankers' acceptances, Checks, etc.

- Bills of lading
 - as collateral for bank loans, 257
 - in foreign exchange, 483, 487-488, 489, 490, 491, 495, 497
- Bimetallic standard
 - advantages of, 51-53
 - disadvantages of, 53-55
 - nature of, 18
 - operation in the United States, 62-64
 - provisions for in "Inflation Amendment," 73, 81
 - requisites of, 50-51
- Blocked accounts
 - features of, 525
 - in "foreign funds control" of the United States, 364, 526
- Blue-sky laws, 620-621
- Board of Governors of the Federal Reserve System
 - as agency of monetary policy, 434
 - attitude toward price-level control, 429-430
 - composition of, 309, 331
 - confusion in jurisdiction of, 169-170
 - establishment of, 309
 - expenses of, 332
 - extension of powers of
 - in Banking Act of 1933, 308
 - in Banking Act of 1935, 309
 - as governmental agency, 331-332
 - policy concerning
 - consumption credit, 451, 580-581
 - direct action, 449-451
 - discount rate manipulation, 436-438
 - margin requirements, 448-449
 - open-market operations, 441-444
 - reserve requirements, 445-447
 - powers concerning
 - consumption credit, 451, 580
 - foreign branches and subsidiaries of member banks, 154
 - guaranty of V-loans, 363
 - interest on deposits, 611-612
 - issuance of federal reserve notes, 110, 111, 113, 340
 - margin requirements, 252, 276, 447-448
 - member bank required reserves, 215-216, 217, 218, 342, 444-445, 446
 - monetary policy, 434
 - reserves of federal reserve banks, 237, 239
 - structure of Federal Reserve System, 332
 - supervision of federal reserve banks, 338, 339-340
 - supervision of member banks, 151, 154, 157, 159-160, 289, 341-342, 450
 - proposed extension of authority of, 170
 - recommendations for changes in member bank reserve requirements, 446
- Bond brokers, 628
- Bonds
 - as collateral for bank loans, 256-257
 - as credit instruments, 96
 - investment by member banks in, 286-288
- Book accounts
 - in credit analysis, 260-261
 - as credit instruments, 95-96
 - discount and purchase by sales finance companies, 587-588
 - excluded from classification of money, 117
 - in international finance, 486
 - as security for bank loans, 257
- Branch banking
 - advantages of, 147-148
 - as basis in classifying location of member banks, 218
 - development in United States, 148-150
 - disadvantages of, 148
 - features of, 147
 - regulation of, 150-153
 - statistics of, 153-154
 - See also Federal reserve banks—branches of, National banks—branches of, State-chartered banks—branches of
- Brassage, 28
- Bretton Woods Agreements Act of 1945, 80-81, 539-540
- Bretton Woods Conference, 539
- Brokerage
 - services of member banks, 289
 - stock exchange, 626-627
- Brokers
 - bond, 628
 - foreign exchange, 473
 - over-the-counter, 631
 - stock exchange, 626-627
- Brokers' loans. See Collateral loan market
- Building and loan associations. See Savings and loan associations, Federal savings and loan associations
- Bureau of Agricultural Economics
 - index of farm price parities, 375
- Bureau of Labor Statistics
 - indexes of
 - consumers' prices, 383-384, 428 *n.*
 - retail food costs, 384
 - wholesale prices, 374, 375, 382
- Cables, 482
- California
 - regulation of savings departments of commercial banks by, 612-613
- Canada
 - central bank of, 315, 324
 - proposal for international monetary institution, 538
 - safety-fund banks in, 327

- Capital market, 614
- Capital stock. *See* Commercial banks—capital stock of, Federal reserve banks—capital stock of, etc.
- Capital transactions in balance of payments, 476-477
- Cash-balance theory. *See* Value of money—cash-balance theory of
- Cash in vault
 - in bank statement, 185-186
 - of federal reserve banks, 368
 - as primary reserves, 185, 209
- Cash items
 - in bank statement, 186
 - as factor in computing required reserves, 217
 - in federal reserve bank operations, 368
 - as reserves, 186, 214
- Cash letters of credit, 190, 483
- Cashiers' checks, 118, 190
- Cassel, Gustav
 - on gold production, 24
 - on purchasing power parity, 508
- Central banking
 - nature of, 90, 315-316
- Central banks
 - characteristics of, 100, 315-317
 - definition of, 315
 - distribution of profits of, 325
 - functions and powers of, 99-100, 318-320, 417-418
 - management of, 325-326
 - nature of, 90, 315-316
 - origin and development of, 320-324
 - ownership of, 324-325
 - responsibility of, 99-100, 315
 - See also* Board of Governors of the Federal Reserve System, Federal reserve banks, etc.
- Central reserve cities, 218, 332
- Certificates of deposit, 611
- Certificates of marine insurance, 497
- Certified checks, 118, 190
- Chain banking
 - nature of, 155
 - regulation of, 157
 - statistics of, 156
- Checks
 - clearing of
 - by clearinghouses, 122-124
 - by federal reserve banks, 124-127
 - by miscellaneous agencies, 127-128
 - statistics of, 125
 - definition of, 118
 - excluded from classification of money, 5
 - as means of international payment, 482-483
 - negotiability of, 119-121
 - outstanding, in bank statement, 190
- Checks (*continued*)
 - types of, 118
 - See also* Negotiable instruments
- China
 - silver standard in, 59
- Clearing agreements, 530-531
- Clearinghouses
 - bank examinations by, 165
 - procedure of, 122-123
 - settlement of balances in, 123-124
- Clearing of checks. *See* Checks—clearing of
- Coinage
 - brassage charge in, 28
 - difficulties with
 - under Coinage Act of 1792, 63
 - under Coinage Acts of 1834 and 1837, 64
 - free
 - nature of, 28
 - as requisite of coin standards, 28-29, 51
 - on government account, 29
 - gratuitous, 28
 - limited, 29
 - seigniorage in, 29
- Coinage acts
 - of 1792, 62
 - of 1834, 63-64
 - of 1837, 64
 - of 1853, 64
 - of 1873, 66
- Coins
 - in American colonial period, 60
 - standard, 18, 28
 - statistics in United States, 85
 - subsidiary
 - nature of, 19, 29
 - provision for in Coinage Act of 1853, 64
 - redeemability of, 19, 68
 - Treasury's policy concerning, 459
- Collateral loan market
 - call loans in
 - borrowers of, 277
 - lenders of, 276-278
 - liquidity of, 278
 - margin requirements affecting, 276, 447-449
 - middlemen in negotiation of, 277
 - nature of, 274-276
 - rates on, 267, 277-278
 - volume of, 275
 - time loans in, 275, 278
- Collection charges, 128-129
- Comaker loans, 256, 591, 592
- Commercial banking
 - defects in system of before 1913, 300-302
 - definition of, 89
 - history in United States, 290-311
 - theory of, 97-98

Commercial banks

- balance sheet of
 - asset accounts in, 185-190
 - illustration of, 187
 - liability accounts in, 190-192
 - nature of, 185
- capital-deposit ratios of, 192
- capital stock of
 - double-liability feature of, 142-143
 - legal requirements of, 141-142
- definition of, 89
- directors of, 144-145, 165
- establishment of
 - under free-banking laws, 137-139
 - under legislative charters, 137
- foreign departments of, 471-473, 499
- functions of, 98-99
- government supervision of
 - agencies of, 159-162
 - examinations in, 162-165
 - nature of, 158
 - need of, 158-159
 - proposals for simplification in, 169-170
 - reports required in, 166-167
- as investment institutions, 247-248
- number of, 293, 297, 299, 300, 310
- personal loan departments of
 - legal status of, 594-595
 - operations of, 595-596
 - organization of, 594
 - statistics of loans of, 596
- procedure in organization of, 139-141
- profits of, 195-198
- proposals for structural reorganization in, 167-169
- responsibility of, 99
- savings departments of
 - classification of accounts in, 611
 - development of, 610-611
 - interest regulations of, 611-612
 - other regulations of, 612-613
 - protection of depositors in, 613
- statement of income and expenses of
 - expense items in, 195
 - illustration of, 194
 - income items in, 193-194
 - net earnings and net profits in, 195-196
- stockholders of, 143-144
- surplus of, 141, 142, 143
- suspensions of, 303-304, 307, 311
- theory of operations of, 97-98
- transactions illustrated
 - deposits and withdrawals, 200-202
 - income and expense, 206-208
 - loans and investments, 203-204
 - miscellaneous, 205-206
 - upon organization, 199-200
 - reserves, 204-205

Commercial banks (*continued*)

- underwriting by, 288-289
- unused lending capacity of, 245-247
- See also* Branch banking, Investments—of commercial banks, Loans and discounts
- Commercial letters of credit. *See* Letters of credit
- Commercial paper
 - as collateral for federal reserve notes, 110-111, 113-114
 - discount rates on, 267
 - open-market
 - dealers in, 273-274
 - investors in, 274
 - nature of, 272
 - volume of, 275
- Commission brokers, 626-627, 631
- Commodity Credit Corporation
 - establishment of, 566, 653
 - federal reserve banks as fiscal agents of, 362
 - loans of
 - scope of, 654
 - statistics of, 568
 - source of funds of, 653
- Commodity loans
 - of banks for cooperatives, 651-652
 - of commercial banks, 257
 - of Commodity Credit Corporation, 654
- Commodity monetary standards, 17-18
- Compensatory principle in bimetallic system, 54
- Competitive bidding on new issues of securities, 617
- Comptroller of the Currency
 - appointment of, 161
 - confusion in jurisdiction of, 169-170
 - as director of FDIC, 173
 - establishment of office of, 299
 - examinations of, 163
 - as ex officio member of Federal Reserve Board, 309
 - procedure in chartering national banks by, 139-141
 - proposed elimination of office of, 170
 - reports required by, 166-167
 - supervision of national banks by, 149-150, 160-161, 163, 189, 285-288, 299
- Conference of Chairmen of the Federal Reserve Banks, 331 *n.*
- Conference of Presidents of the Federal Reserve Banks, 330 *n.*
- Conservators of national banks, 305
- Consumption banking, 90-91
- Consumption banks
 - development of, 579-580
 - nature of, 90-91

- Consumption banks (*continued*)
 regulation of, 583, 589-590, 591-592, 594-595, 597-598
See also Industrial banks, Personal finance companies, Sales finance companies, etc.
- Consumption credit
 characteristics of, 578
 development of institutions granting, 579-580
 nature of, 93-94, 577
 regulation of, 451, 580-581
 scope of, 577
 volume of, 578-579
- Continental Congress
 paper money issues of, 61-62
- Contract Settlement Act of 1944, 363
- Correspondent banks
 in foreign exchange operations, 472-473
 services of, 127, 344
- Country districts, 218, 332
- Credit
 characteristics of, 91-93
 classification of, 93-94
 definition of, 91
 instruments used in extending, 95-97
 relation to money, 94-95
- Credit analysis
 by commercial banks, 259-261
 by federal reserve banks, 348
- Credit control. *See* Monetary policy
- Credit money
 in American colonial period, 60-61
 classification of, 18-20
 nature of, 18
 in present monetary system of United States, 84-86
 redeemability of
 under bimetallic standard, 51
 under fiat standard, 55
 under gold standard, 30-32, 33-34
 limitations upon in Gold Reserve Act, 76, 83
 provisions for in Gold Standard Act, 69
 statistics of, 85, 86
- Credit risk in investment, 283
- Credit unions
 loans of, 598
 nature of, 596
 organization of, 597-598
 statistics of, 597
- "Crime of '73," 66-67
- Customers' liability on account of acceptances, 189
- Debt. *See* Credit
- Defense Homes Corporation, 576, 677
- Deferred availability items, 125, 233, 368
- Deficit financing
 relation to monetary policy, 422-423, 441, 442-444, 462-464
- Deflation
 definition of, 425
 proposals to prevent, 426
- Demand deposits
 in bank statement, 190
 composition of, 85-86
 development of, 14
 distinguished from time deposits, 190, 217
 elasticity of, 131-133
 importance of, 115
 insurance of, 130-131
 as money, 5, 19, 115-118, 127
 origination of, 97-98, 131-132
 parity of, 128-130
 process of expansion of, 132-133, 221-228
 reserves required for
 computation of, 216-217
 development in United States, 213-215
 reports concerning, 217
 as source of safety, 130
 safety of, 130-131
 volume of in United States, 86
See also Deposit insurance, Federal Deposit Insurance Corporation
- Deposit insurance
 case for and against, 179-181
 early plans of, 171-172
 proposals for national program of, 172-173
See also Federal Deposit Insurance Corporation
- Deposits. *See* Demand deposits, Time deposits
- Devaluation of the dollar. *See* Dollar—devaluation of
- Direct action as instrument of monetary policy, 449-451
- Directors. *See* Federal reserve banks—directors of, National banks—directors of, etc.
- Disaster Loan Corporation, 567
- Discount companies. *See* Sales finance companies
- Discount rates
 of commercial banks, 248-249, 250
 of federal reserve banks
 changes in as instrument of monetary policy, 434-438
 classification of, 356
 nature of, 356-357
- Discounts. *See* Federal reserve banks—discounts and advances of, Loans and discounts, etc.
- Dollar
 devaluation of
 authorization of, 73, 76
 effects of, 456

- Dollar (*continued*)
 devaluation of (*continued*)
 proclamation effecting, 77
 profit derived in, 77
 gold weight of, 62, 63, 64, 77, 83
 possibility of revaluation of, 77, 456-457
 silver weight of, 62, 63, 67, 81
- Dollar exchange, 492-493
- Double liability of bank stock, 142-143, 307, 309
- Drafts. *See* Bank drafts, Checks, Trade drafts, etc.
- Dun and Bradstreet
 wholesale price index of, 383
- Electric Home and Farm Authority, 566, 568-569
- Eligible paper
 advances upon, 351
 classification of, 349-351
 as collateral for federal reserve notes, 110-111, 113-114
 nature of, 348-349
 rediscounts of, 351-352
 theory of, 348-349
- Emergency Banking Act of 1933
 banking provisions of, 305-306
 monetary provisions of, 73
- Emergency Crop and Feed Loan Division. *See* Farmers Home Administration
- Emergency Farm Mortgage Act of 1933, 647
- Emergency Relief and Construction Act of 1932, 305
- Engineering News-Record*
 index of construction costs of, 384
- England
 exchange control in, 523-524, 527-528, 529, 530, 531 *n.*
 leadership of in maintenance of gold standard, 45-46
 suspension of gold standard by, 71-72
- Equalization funds. *See* Exchange stabilization funds
- Equation of exchange
 in cash-balance theory, 395-396
 in transactions theory, 391-392
- Examinations. *See* Bank examinations
- Excess reserves
 idle, 245-247
 significance of, 211, 221-228
 statistics of, 246
See also Demand deposits—process of expansion of, Reserves—primary
- Exchange. *See* Foreign exchange
- Exchange arbitrage
 definition of, 514
 illustrations of, 514-515
- Exchange charges. *See* Collection charges, Remittance charges
- Exchange control
 bilateral and multilateral
 clearing agreements as, 530-531
 cooperation in management of stabilization funds as, 529-530
 payment agreements as, 530
 "foreign funds control" in United States, 364, 526
 nature of, 520-522
 objectives of, 522-523
 provisions for in International Monetary Fund, 547-548
 removal of, as problem of postwar reconstruction, 535-536
 scope of, 520-522
 unilateral
 blocked accounts as, 525-526
 exchange rationing as, 526-529
 operation of stabilization funds as, 523-525
- Exchange drafts on federal reserve banks, 366
- Exchange Equalization Account, 523-524, 529
- Exchange rates. *See* Foreign exchange rates
- Exchange rationing
 import quotas and, 528
 lend-lease and, 528-529
 procedure in, 526-527
 use of official rates in, 527-528
- Exchange Stabilization Fund of the United States
 establishment of, 76-77, 524
 illustration of operations of, 524-525
 operation through Federal Reserve Bank of New York, 361
 reduction in resources of, 80-81, 540
 use of as instrument of monetary policy, 460
- Exchange stabilization funds
 cooperation in management of, 529-530
 operations of, 524-525, 529
 origin of, 523-524
- Export-Import Bank of Washington
 capital funds of, 561
 establishment of, 560, 566
 management of, 560-561
 operations of, 561-562
 outstanding loans of, 568
- Export point. *See* Gold points
- Factors, 638
- Factors of increase and decrease in reserves
 classification of, 229
 nature of, 231-237
 statistics of, 230, 231, 232
- Farm credit
 characteristics of, 634

- Farm credit (*continued*)
 private sources of
 intermediate- and short-term, 637-638
 long-term, 636-637
 problems of, 634-635
 volume of, 636, 645
- Farm Credit Act of 1933
 banks for cooperatives established by, 651
 production credit corporations established by, 647
- Farm Credit Administration
 districts of, 640, 641
 management of, 639, 641
 organization of, 638-639, 642
 outstanding loans of, 645
- Farm mortgage companies, 637
- Farm Security Administration, 568, 655
- Farmers Home Administration
 establishment of, 567, 654
 loans of, 568, 655
- Federal Advisory Council, 334, 446
- Federal banking institutions
 development of, 565-568
 functions of, 565-567, 570
 permanence of, 568-569
 socialization of banking and, 569-570
 statistics of loans of, 568
- Federal Credit Union Act of 1934, 596, 597, 598
- Federal Deposit Insurance Corporation
 attitude toward capital-deposit ratio, 192
 capital funds of, 173-174, 336
 confusion in jurisdiction of, 169-170
 establishment of, 173, 307
 income and expenses of, 174-175
 insurance program of
 assessment of insured banks in, 174
 criticism of, 179-181
 eligibility of banks for insurance in, 174-176, 592, 606-607
 expulsion and withdrawal of insured banks from, 176-177
 original plan of, 173
 present scope of, 130-131, 173, 309
 statistics of, 175-176, 179, 607
 temporary plan of, 307, 309 *n.*
 investments of, 174
 organization of, 173
 powers of, 177-178, 309
 procedure as receiver, 178-179
 supervision of insured nonmember banks by, 176, 177
- Federal Farm Loan Act of 1916, 641-642
- Federal Farm Mortgage Corporation
 bonds of
 as collateral for federal reserve bank advances, 352
- Federal Farm Mortgage Corporation (*continued*)
 bonds of (*continued*)
 eligible for purchase by federal reserve banks, 357
 establishment of, 566
 loans of, 568
 objectives of, 569
- Federal Home Loan Bank Act of 1932, 665, 667
- Federal Home Loan Bank Administration
 index of cost of residential construction of, 384
 jurisdiction of, 667
 powers of
 in chartering federal savings and loan associations, 662
 in supervising federal home loan banks and member institutions, 667, 668
- Federal home loan banks
 capital of, 668
 debentures of, 668
 establishment of, 566, 666-667
 life of, 568
 loans and investments of
 scope of, 669-670
 statistics of, 568, 666
 management of, 667-668
 member institutions of
 qualifications of, 668-669
 statistics of, 669
 plan of cooperative ownership of, 570
 surplus of, 668
- Federal Housing Administration
 establishment of, 566, 665, 673
 finances of, 676-677
 insurance program of
 housing insurance in, 675
 modernization loans in, 673-674
 mutual mortgage insurance in, 674-675
 statistics of, 674
 war housing insurance in, 675-676
 standards of, 258, 673
- Federal intermediate credit banks
 acceptances of eligible paper for purchase by federal reserve banks, 357
 establishment of, 565
 life of, 568
 loans and discounts of
 regulations of, 650
 statistics of, 568, 645
 obligations of as security for federal reserve bank advances, 352
 organization of, 649
 rediscounts of with federal reserve banks, 356 *n.*
 sources of funds of, 650

- Federal land banks
 - bonds of, 643
 - establishment of, 565, 641
 - life of, 568
 - loans of
 - direct, 646-647
 - through national farm loan associations, 644-646
 - regulations of, 644
 - statistics of, 568, 636, 645
 - stock and surplus of, 643
- Federal Loan Administrator, 572
- Federal Loan Agency, 572
- Federal National Mortgage Association, 567, 666
- Federal Open Market Committee
 - composition of, 333-334
 - objectives of, 359-360
 - origin of, 308, 309, 332-333
 - powers of, 332, 333, 434
 - procedure of, 358-359
 - proposed expansion in authority of, 446
- Federal Public Housing Authority
 - life of, 568
 - operations of, 677-678
 - organization of, 677
 - statistics of loans of, 568, 666
- Federal Reserve Act of 1913
 - background of, 301-302, 327-330
 - provisions concerning
 - bank notes, 108-109, 110, 302
 - bankers' acceptances, 271, 303
 - branch banking, 149, 154
 - clearing of checks, 124, 302-303
 - demand and time deposits, 302
 - discounts and advances of federal reserve banks, 351
 - earnings of federal reserve banks, 336
 - eligible paper, 348
 - establishment of federal reserve banks, 302
 - establishment of Federal Reserve Board, 302
 - executive officers of federal reserve banks, 337
 - member bank reserves, 215, 217 *n.*, 302, 444, 611
 - open-market operations of federal reserve banks, 357
 - Reserve Bank Organization Committee, 330
 - trust departments of national banks, 303
 - weaknesses of, 303
- Federal reserve agents
 - position of, 337-338
 - supervision of note issues by, 112
- Federal reserve bank notes
 - purposes of, 108-109
- Federal reserve bank notes (*continued*)
 - revocation of power to issue, 80, 109
 - statistics of, 85
- Federal Reserve Bank of New York
 - correspondent relations with foreign banks and governments, 362
 - as depository of International Monetary Fund, 544
 - discount rates in effect at, 356
 - dominant position of, 366
 - as fiscal agent in operation of Exchange Stabilization Fund, 361
 - general price index of, 383
 - index of wage rates of, 384
 - statement of, 367
- Federal Reserve Bank of San Francisco, 364
- Federal reserve banks
 - agencies of, 339
 - branches of
 - functions of, 338-339
 - location of, 335
 - management of, 339
 - capitalization of, 334, 336
 - clearing operations of
 - availability schedules in, 125
 - "compulsory" (present) system in, 124-125, 365
 - interdistrict procedure in, 126-127
 - intradistrict procedure in, 125-126
 - problem of par remittance in, 128-129
 - statistics of, 125
 - "voluntary" system in, 124
 - currency operations of, 364-365
 - direct security transactions with Treasury by, 357-358
 - directors of, 337
 - discount rates of
 - changes in as instrument of monetary policy, 434-438
 - range of, 356-357
 - discounts and advances of
 - upon eligible paper, 348-352
 - for federal intermediate credit banks, 356 *n.*
 - upon federal obligations, 352
 - for groups of five or more member banks, 356 *n.*
 - for industrial working capital, 353-355, 363
 - nature of, 347-348
 - present theory of, 349
 - production credit theory of, 348-349
 - relation to commercial bank primary reserves, 229-232, 239-240
 - security to satisfaction of reserve banks, 352-353
 - volume of, 346-347
 - earnings of, 336-337

Federal reserve banks (*continued*)

- establishment of, 302
 - examination of, 339
 - examinations by, 163-164, 366
 - exchange drafts of, 366
 - executive officers of, 309, 337-338
 - as fiscal agents
 - of Exchange Stabilization Fund, 361
 - of foreign governments and banks, 362
 - in guaranty of V-loans, 258-259, 362, 363
 - of miscellaneous agencies, 361-362
 - of the Treasury, 303, 360-361, 364
 - holding of federal obligations by
 - relation to commercial bank primary reserves, 229-233, 239-240
 - under repurchase option, 346, 355-356
 - statistics of, 358
 - location of, 335
 - miscellaneous operations of, 362-364, 366
 - open-market operations of
 - in bankers' acceptances, 271, 357
 - as instrument of monetary policy, 438-444
 - procedure in, 358-359
 - purposes of, 359-360
 - securities eligible for, 357
 - "other accounts" in relation to commercial bank primary reserves, 229-232, 236-237
 - "other credit" in relation to commercial bank primary reserves, 229-233
 - personnel of, 338 *n.*
 - reserves of
 - expansibility of, 238-239
 - penalties for deficiencies in, 239
 - reduction in required, 80
 - required for deposit liabilities, 237-238
 - substitution of gold certificates in, 76
 - services of for member banks, 342-343
 - statement of, 339, 366-369
 - subscription to stock of FDIC by, 173-174, 336
 - surplus accounts of, 369
 - telegraphic transfers of, 365-366
- Federal Reserve Board. *See* Board of Governors of the Federal Reserve System
- Federal reserve districts
- changes in boundaries of, 332
 - chart of, 335
- Federal reserve notes
- collateral requirements for, 110-111
 - elasticity of
 - emergency, 113-114
 - seasonal, 111-113
 - mechanics of issuing, 111-112
 - parity of, 111

Federal reserve notes (*continued*)

- purpose of, 109
 - redemption fund for, 111
 - reserves for
 - penalties for deficiencies in, 113
 - requirements of, 80, 110-111, 113
 - statistics of, 85, 114
 - supervision of issue of, 340
- Federal Reserve System
- establishment of, 330
 - membership in
 - advantages of, 342-343
 - objections to, 343-345
 - qualifications for, 340-341
 - statistics of, 343
 - position of relative to monetary policy, 419, 433-434
 - proposal for mandatory membership in, 168-169
 - structure of, 330-331
 - See also* Member banks of Federal Reserve System
- Federal savings and loan associations
- chartering of, 662
 - insurance of shareholders' accounts in, 671-673
 - loans of, 662-663
 - membership in federal home loan bank system, 668-669
 - shares of, 662
 - statistics of, 663, 669
- Federal Savings and Loan Insurance Corporation
- establishment of, 566, 665, 671
 - insurance program of, 671-672
 - life of, 568
 - organization and capital of, 671
 - powers of, 672-673
- Fiat standard
- advantages of, 56-57
 - disadvantages of, 57-59
 - nature of, 18, 55
 - in United States, 64-67, 69
- Finance companies. *See* Personal finance companies, Sales finance companies
- Fiscal policy
- relation to commercial bank investments, 284-285
 - relation to volume of money, 461-466
 - See also* Treasury—monetary policy of
- Fisher, Irving
- equation of exchange of, 391 *n.*
 - wholesale price index of, 382
- "Float" as fictitious element in reserves, 214
- Floor brokers, 627
- Floor traders, 628
- Foreign banks
- branches of in United States, 473

Foreign banks (*continued*)

deposits of at federal reserve banks, 236, 369

Foreign Economic Administration, 521 *n.*

Foreign exchange

arbitrage transactions in, 513-515

difficulties in, 470

documents used in

bills of lading, 497

certificates of marine insurance, 497

consular invoices, 498

hypothecation certificates, 497-498

miscellaneous, 498

effects of transactions upon bank balances, 474-477

forward contracts in, 515-517

inadequate facilities for before 1913, 301

instruments in

authority to purchase, 496

bankers' sight drafts, cables, and telegraphic transfers, 482

cash letters of credit, 483

commercial letters of credit, 486-494

gold, 474-475, 481

international money orders, 485

paper money, 481-482

personal checks, 482-483

trade drafts, 494-496

travelers' checks, 484-485

travelers' letters of credit, 483-484

nature of, 469

provisions of Federal Reserve Act to improve facilities, 303

sources of supply and demand in

capital transactions as, 476-477, 478-480

for individual bank, 471-472

service transactions as, 475-476, 478-480

shipments of merchandise as, 474-475, 478-480

See also Exchange control

Foreign exchange brokers, 473

Foreign exchange control. *See* Exchange control

Foreign exchange market

nature of, 470-471

operators in, 471-473

Foreign exchange rates

classification of, 499-501

determination of

between countries on dissimilar standards, 512-513

between countries on fiat standards, 508-511

between countries on gold standards, 504-508

supply and demand factors in, 503

as measures of external purchasing power of money, 499

Foreign exchange rates (*continued*)

relationship among

buying and selling, 501-502

in domestic and foreign centers, 513-514

official and free, 527-528

sight and time, 502-503

spot and forward, 518-519

stability of

under bimetallic standard, 52-53

under fiat standard, 57-58

under gold standard, 38-40, 41-42

"Foreign funds control," 364, 526

Foreign trade

freedom of as requisite of international gold standard, 44, 46

relation to foreign exchange, 474-476, 478-480

restoration of freedom of as problem of postwar reconstruction, 537-538

Forward exchange

nature of, 515-517

rates upon, 518-519

Fraud laws, 620-621

Free-banking laws

bank notes under, 107

encouragement of unit banking by, 146

nature of, 137-139

Free coinage. *See* Coinage—free

Functions of money. *See* Money—functions of

"G.I. Bill of Rights"

guaranty of loans under, 259

Glass-Steagall Act of 1932

emergency advances by federal reserve banks under, 305, 349, 351, 352, 356 *n.*

issue of federal reserve notes under, 110, 114

Gold

free market in

present limitations of in United States, 76, 83

as requisite of bimetallic standard, 51

as requisite of gold standard, 29-30, 32, 33

history of as money, 11-13

as international medium of exchange and standard of value, 38-40, 471-472, 474-475, 481, 551-553

as legal tender, 30, 32, 51

nationalization of in United States, 73, 76

position of as problem of postwar reconstruction, 532-533

production of

conditions in, 23-24, 26-27

statistics of United States, 78

purchase experiment of 1933, 74-75

redistribution of as problem of postwar reconstruction, 536-537

- Gold-bullion standard
 - features of, 32
 - limited in United States, 83-84
 - special advantages of, 32-33
 - See also* Gold standard
- Gold certificates
 - as collateral for federal reserve notes, 110-111, 113
 - deposited by Treasury at federal reserve banks, 234, 455
 - as deposits in Interdistrict Settlement Fund, 126
 - provision for in Gold Reserve Act, 76
 - in redemption fund for federal reserve notes, 111
 - as reserves for federal reserve notes, 110-111, 113, 114
 - statistics of, 84, 85
- Gold clause
 - abrogation of, 74
 - nature of, 74
 - Supreme Court decisions concerning, 74 *n.*
- Gold-coin standard
 - features of, 27-32
 - See also* Gold standard
- Gold dollar
 - in Coinage Act of 1792, 62
 - in Coinage Acts of 1834 and 1837, 63-64
 - devaluation of, 77, 456
 - in Gold Reserve Act of 1934, 77
 - in Gold Standard Act of 1900, 69
 - in proclamation of 1934, 77, 456
- Gold-exchange standard
 - difficulties with, 47, 71
 - features of, 33-34
 - pyramiding and depyramiding under, 35-36
 - special advantages of, 34-35
 - See also* Gold standard
- Gold movements
 - theory of, 40-41, 42-43, 506-508
 - of United States, 78-79
- Gold points
 - domestic, 505-506
 - effect upon gold movements, 506-508
 - foreign, 506
 - nature of, 505
- Gold production. *See* Gold—production of
- Gold purchase experiment of 1933, 74-75
- Gold Reserve Act of 1934, 75-77, 110, 471 *n.*
- Gold reserves
 - drain in United States in 1890's, 68-69
 - drain in United States in 1931-1933, 72-73
 - equitable international distribution of, 44, 46-47, 536-537
 - expansion of in operations of International Monetary Fund, 552-553
 - pyramiding and depyramiding of, 35-36
- Gold reserves (*continued*)
 - ratio to silver reserves of United States, 82
 - relation to commercial bank primary reserves, 229-234, 453-457
 - stability of, 23-24
 - statistics of
 - United States, 78, 82, 84
 - World, 51
 - sterilization of, 454-456
- Gold Settlement Fund. *See* Interdistrict Settlement Fund
- Gold standard
 - advantages of
 - in domestic operation, 20-24, 32-33, 34-35
 - in international operation, 38-41
 - breakdown of international, 45-48, 71-72
 - British role in maintaining, 45-46
 - disadvantages of
 - in domestic operation, 24-27, 35-36
 - in international operation, 41-43
 - nature of, 27
 - problem of postwar reconstruction of freedom of foreign trade as, 537-538
 - initial pars of exchange as, 535
 - internal monetary management as, 533-535
 - position of gold as, 48, 532-533
 - redistribution of monetary gold as, 536-537
 - removal of exchange controls as, 535-536
 - re-establishment of in International Monetary Fund, 551-553
 - requisites of
 - bullion variant, 32
 - coin variant, 27-32
 - exchange variant, 33-34
 - in international sphere, 43-45
 - in United States, 67-86
- Gold Standard Act of 1900, 69, 328
- Government banking agencies. *See* Federal banking institutions
- Government credit money
 - classes of, 19
 - nature of, 19
 - in present monetary system of United States, 84-85
 - redeemability of, 19-20
 - See also* Silver certificates, United States notes, etc.
- Government securities. *See* Treasury obligations
- Greenbacks. *See* United States notes
- Gresham's law
 - definition of, 30
 - operation of
 - under bimetallic standard, 53-54
 - under gold standard, 30-32

- Group banking
 - abuses of, 156
 - nature of, 155
 - regulation of, 156-157, 308
 - statistics of, 155-156
- Guarantor of solvency, 10-11
- Guaranty of bank deposits. *See* Deposit insurance, Federal Deposit Insurance Corporation
- Guaranty of loans
 - by Federal Housing Administration, 258, 264
 - by military agencies, 258-259
 - in operations of International Bank, 556-558
 - by Reconstruction Finance Corporation, 573-574
 - by Veterans Administration, 259, 264
- Guaranty Trust Company
 - wholesale price index of, 383
- Hedging in investment operations, 283-284
- Home Owners' Loan Act of 1933, 662, 665, 670
- Home Owners' Loan Corporation
 - bonds of
 - as collateral for federal reserve bank advances, 352
 - eligible for purchase by federal reserve banks, 357
 - establishment of, 566, 670
 - expiration of lending functions of, 568, 671
 - operations of, 670-671
 - statistics of loans of, 568, 658, 666
- Housing Insurance Fund, 676-677
- Hypothecation certificates, 497-498
- Import point. *See* Gold points
- Import quotas, 528
- Income theory. *See* Value of money—income theory of
- Independent treasury system
 - difficulties with, 298, 301
 - discontinuance of, 298, 303
 - establishment of, 297-298
 - operations of, 298
- Index numbers of prices
 - aggregates of actual prices, 379-381
 - as criteria for monetary policy, 427-429
 - general, 382, 383
 - limitations of, 384-385
 - nature of, 378-379
 - retail, 383-384
 - special series, 384
 - weighted averages of relative prices, 381
 - wholesale, 374, 382-383
- Indianapolis "currency convention," 327-328
- Indorsements, 121, 256
- Industrial banks
 - eligibility for FDIC insurance, 174, 592
 - eligibility for membership in Federal Reserve System, 307, 340, 592
 - loans of
 - scope of, 592-594
 - statistics of, 593
 - nature of, 591
 - regulation of, 591-592
 - sources of funds of, 594
- Industrial loans of federal reserve banks, 353-355, 363
- Inflation
 - definition of, 425
 - proposals to prevent, 426
- "Inflation Amendment" of 1933
 - amendments of, 74, 76, 80
 - provisions of, 73, 81, 215, 444, 458
- Institutional Securities Corporation, 606
- Insurance of bank deposits. *See* Deposit insurance, Federal Deposit Insurance Corp.
- Insurance of loans. *See* Guaranty of loans
- Interdistrict Settlement Fund
 - clearing of checks through, 126-127, 332
 - clearing of exchange drafts and telegraphic transfers through, 366
 - clearing of federal reserve notes through, 113
 - nature of, 126
- Interest
 - charged by commercial banks, 248-249, 250, 264
 - on deposits, 176, 307, 309, 342, 603, 609, 611-612
 - rates
 - changes in as source of "money risk," 283
 - upon money market securities, 267
 - problems of involving treasury obligations, 284-285
 - regional variations in United States before 1913, 301
- International Bank for Reconstruction and Development
 - background of, 538-540
 - capital of, 555-556
 - charges of, 556
 - criticism of setup of, 559-560
 - guaranties of, 556, 557, 558
 - loans of
 - from borrowed funds, 558
 - general regulations of, 556-557
 - from own funds, 557-558
 - management of, 558-559
 - membership of United States in, 80, 539-540
 - objectives of, 554
 - subscriptions in, 555-556
 - voting power in, 555, 558

- International gold standard. *See* Gold standard
- International Monetary Fund
 background of, 538-540
 "borrowing" from, 553
 charges of, 546-547
 dividends of, 547
 management of
 board of governors, 550-551
 executive directors, 551
 managing director, 551
 membership of United States in, 80, 539-540
 need of international cooperation in supporting, 553-554
 objectives of, 540
 obligations of members of, 548-549
 par values of currencies in
 changes in, 543-544
 initial determination of, 542
 transactions based upon, 542-543
 powers of, 549
 purchase and sale of currencies by
 capacity of members to buy, 544-545
 limitations upon capital transfers, 546
 scarce currencies, 545-546
 "stock in trade" of the fund, 544
 quotas and subscriptions in, 541-542
 role of gold in operations of, 551-553
 transitional arrangements in, 547-548
 voting power in, 541, 550, 551
- International silver agreement of 1933, 81
- Investment affiliates of commercial banks, 156, 288-289
- Investment banking
 divorcement from commercial banking, 288-289
 nature of, 90, 614
- Investment banks
 borrowing from commercial banks by, 252
 classification of, 615, 627, 631
 "making the market" by, 619
 nature of, 90, 614
 operations of
 as originators, 616-617
 in selling groups, 618-619
 in underwriting syndicates, 617-618
 regulation of
 development of, 620-621
 need of, 619
 in Securities Act of 1933, 621-624
 in Trust Indenture Act of 1939, 616
 underwriting by, 615-616
- Investment trusts, 600
- Investments
 of commercial banks
 in bank statement, 186-188
 position in purchasing, 283-284
- Investments (*continued*)
 of commercial banks (*continued*)
 problems concerning holdings of federal obligations, 284-285
 reasons for, 281-282
 as sources of demand deposits, 132-133, 226
 statistics of, 248
 definition of, 281 *n.*
 of mutual savings banks, 603-605
- Joint-stock banks in England, 321-322
- "Key-currencies approach" to monetary reconstruction, 538-539 *n.*
- Keynes plan of monetary reconstruction, 538
- Kitchin, Joseph
 on gold production, 24
- Land Bank Commissioner
 approval of bond issues of land banks by, 643
 loans of, 647
 powers of, 639, 641
- Latin Monetary Union, 59, 66
- Legal lists for investments of mutual savings banks, 603-604
- Legal tender
 bank notes as, 55, 102-103
 characteristics of, 15-16
 gold coins as, 30, 51
 in present monetary system of United States, 86
 provisions of "Inflation Amendment," 73
 provisions of Joint Resolution of June 5, 1933, 74, 86
 silver coins as, 51
- Lend-Lease Act of 1941, 521 *n.*, 528-529
- Letters of credit
 cash, 483
 commercial
 of bank in exporter's country, 490
 of bank in third country, 490-491
 classification of, 493-494
 definition of, 486
 of exporter's bank, 489-490
 of importer's bank, 487-488
 travelers', 483-484
- Letters of hypothecation, 497-498
- Life insurance companies
 as lenders on farm mortgages, 637
 as lenders on urban mortgages, 664
 membership of in Federal Home Loan Bank System, 668-669
- "Limping standard," 67-69
- Lines of credit, 250-251
- Liquidity
 of bank loans, 266-267

- Liquidity (*continued*)
 of call loans, 278
 of secondary reserve assets, 266
- Listing of securities on stock exchanges, 628-629
- Livestock loan companies, 637-638
- Loans and discounts
 in bank statement, 188
 classification of, 249-253
 credit analysis in granting, 259-261
 distinguished, 188
 government guaranties of, 258-259
 government regulation of
 interest charges, 264
 loans to affiliates, 263
 loans contrary to public interest, 263-264
 real-estate loans, 264
 ten per cent rule, 262-263
 instruments used in granting, 253-256
 interest rates on, 248-249, 250
 liquidity of, 266-267
 security for, 256-258
 as sources of demand deposits, 132-133, 221-226, 245
 statistics of, 248, 254
See also Federal reserve banks—discounts and advances of
- Loans to Industries Act of 1934, 353-354, 363
- Margin requirements, 276, 447-449
- Maritime Commission
 authority to guarantee loans, 258-259, 362-363
 issue of ship warrants by, 521 *n.*
- Marketability of money-market securities, 266
- McFadden Act of 1927
 branch banking in, 149-150
 savings departments of national banks in, 611
- Medium of exchange, 4, 6-7, 37, 38
- Member banks of Federal Reserve System
 classification of
 for computation of required reserves, 218
 for election of directors of federal reserve banks, 337
 classification of loans of, 253-254
 deposits of, 342, 343
 discounts and advances obtained from federal reserve banks by, 346-353
 expulsion and withdrawal of, 341
 income and expenses of, 194
 loans and investments of, 342, 343
 number of, 310, 606
 profits of, 196-198
 qualifications of, 340-341, 605-606
 regulation of interest paid on deposits by, 611-612
 regulation of investments of, 285-288
- Member banks of Federal Reserve System (*continued*)
 reserves of, 216-218, 229-231, 444-447
 security brokerage activities of, 289
 subscriptions to stock of federal reserve banks by, 334, 336
 subsidiaries of, 154, 286
 supervision of, 341-342
 suspensions of, 304, 307, 311
 treasury licenses for, 306
 underwriting by, 289, 308
 use of clearing facilities of federal reserve banks by, 124-125
- Merchandise transactions in balance of payments, 474-475
- Minor coins, 85
- Mint ratio
 in bimetallic system, 50-51
 under Coinage Act of 1792, 62
 under Coinage Acts of 1834 and 1837, 63-64
- Monetary policy
 agencies of, 418-419, 433-434, 452-453
 definition of, 417
 instruments of
 changes in discount rates, 434-438
 changes in margin requirements, 447-449
 changes in reserve requirements, 444-447
 direct action, 449-451
 management of gold reserves, 453-457
 management of quantity of treasury currency, 457-459
 management of Treasury's working balance and other funds, 459-461
 open-market operations, 438-444
 planning of taxation, borrowing, and expenditure by Treasury, 461-466
 internal as problem of postwar reconstruction, 533-535
 nature of, 417-418
 objectives of
 aid to foreign governments and central banks, 423
 assistance to Treasury, 422-423
 protection of monetary standard, 420
 significance of, 419-420
 stabilization of business activity, 423-432
 stabilization of money market, 420-422
 quantitative and qualitative aspects of, 418, 433
- Monetary standards
 classification of, 17-18
 definition of, 17
 domestic and international aspects of, 20
 protection of as objective of monetary policy, 420
See also Bimetallic standard, Fiat standard, Gold standard, etc.

- Money**
 bank demand deposits as, 5, 14, 19, 115-118, 127
 characteristics of, 14-15
 classification of, 18-20
 definition of, 4
 development of, 11-14
 functions of
 as bearer of options, 10 n.
 as guarantor of solvency, 10-11
 as medium of exchange, 5-7, 37, 38
 as standard of deferred payments, 9
 as standard of value, 7-9, 37, 38, 377
 as store of purchasing power, 10
 importance of, 3, 5-11
 as legal tender, 15-16
 metals as, 11-13
 nonmetallic commodities as, 11
 paper instruments as, 4-5, 13-14
 relation of quantity in circulation to commercial bank primary reserves, 229-231, 234-235
 speculative *vs.* productive use of, 430-431
See also Value of money
- Money market**
 divisions of
 bankers' acceptances, 269-272
 collateral loan, 274-278
 commercial paper, 272-274
 short-term government obligations, 279-280
 nature of, 268-269
 stabilization of as objective of monetary policy, 420-422
- Money of account, 9**
- Money orders, 485**
- "Money risk"**
 in holding bonds in general, 283-284
 in holding treasury obligations, 284-285
- Moody's Investors Service**
 security price indexes of, 384
 security ratings of, 287
- Moral suasion. *See* Direct action**
- Morris Plan banks**
 eligibility for FDIC insurance, 174-175
 eligibility for membership in Federal Reserve System, 307, 340, 592
 establishment of, 591
- Mortgage banking, 91**
- Mortgage banks**
 characteristics of credit granted by, 656-657
 nature of, 91
 types of, 657-658
See also Federal home loan banks, Federal savings and loan associations, etc.
- Mortgage companies, 663-664**
- Mortgages as security for bank loans, 257-258**
- Multiplier theory, 412-413**
- Mutual Mortgage Insurance Fund, 676-677**
- Mutual savings banks**
 cooperative facilities of in state of New York, 606
 depositors in, 602-603
 distribution of, 601
 dividends of, 603
 investments of, 603-605, 637, 664
 management of, 602
 membership of
 in Federal Deposit Insurance Corporation, 174, 606-607
 in Federal Home Loan Bank System, 606, 668-669
 in Federal Reserve System, 307, 340, 605-606
 origin of, 600-601
- National Association of Mutual Savings Banks, 603, 606**
- National Association of Security Dealers, 633**
- National Bank Acts of 1863-1864**
 adoption of, 299
 amendment of 1865 on branch banking, 149
 establishment of Bureau of Comptroller of Currency by, 161
 lack of provisions for savings accounts in, 610
 provisions concerning
 capital, 299
 depository functions for the Treasury, 298
 note issues, 299
 reserves, 213
- National banks**
 acceptances of, 271, 303
 articles of association of, 140
 branches of
 early regulation of, 149-150
 foreign, 154, 303
 present regulation of, 150-151
 statistics of, 153
 capital stock of
 legal requirements of, 141, 150-151, 299, 307
 preferred, 306
 conservators for, 305
 as depositories for Treasury, 298
 directors of, 140, 144-145, 307
 examination of, 163-164
 government supervision of, 160-161, 261-264, 285-289, 299
 notes of
 inelasticity of, 108, 300
 regulation of, 107-108, 299
 retirement of, 108
 statistics of, 85

- National banks (*continued*)
 obligatory membership of in Federal Reserve System, 340
 procedure in organization of, 139-141
 reports of, 166-167
 reserves of
 defective arrangements before 1913, 213-215, 300
 present requirements, 216-218
 provisions in Federal Reserve Act and amendments, 215
 requirements before 1913, 213
 savings departments of, 610-611
 subsidiaries of, 154, 286
 surplus of, 141, 142, 309
 suspensions of, 304, 307, 311
 trust departments of, 303, 342
 National Credit Corporation, 304
 National farm loan associations, 644-646
 National Housing Act of 1934, 258, 665, 671, 673-676
 National Housing Agency, 666
 National Industrial Conference Board
 index of cost of living of, 384
 National Industrial Recovery Act of 1933
 bankers' "code of fair competition" under, 193
 National Monetary Commission, 301, 329
 National Reserve Association, 329
 Navy Department
 authority to guarantee loans, 258-259, 362-363
 Negotiability
 advantage of, 119-120
 nature of, 119
 Negotiable instruments
 as credit instruments, 96
 holder in due course of, 120-121
 indorsements upon, 121
 requisites of, 120
 See also Bankers' acceptances, Checks, etc.
 Neutral money, 431-432
 New York Curb Exchange, 629
 New York, state of
 cooperative facilities of mutual savings banks in, 606
 State Banking Board of, 604
 New York Stock Exchange
 determination of call loan rates on, 277-278
 function of "money desk" of, 277
 functions of members of, 626-628
 listing of securities on, 628-629
 management of, 625-626
 organization of, 624-625
 statistics of call and time loan rates on, 267
 volume of brokers' loans on, 275
 volume of sales on, 625
 Nonmember banks
 discounts and advances obtained from federal reserve banks by, 351-352, 354
 number of, 310
 relation of deposits at federal reserve banks to member bank reserves, 229-231, 236
 suspensions of, 304, 307, 311
 use of clearing facilities of federal reserve banks by, 124-125
 Nonpar banks, 129-130
 Notes. *See* Bank notes, Federal reserve notes, etc.
 Odd-lot dealers, 628
 100 per cent reserve plan
 criticism of, 242-244
 scope of, 241-242
 Open-market operations. *See* Federal reserve banks—open-market operations of
 Originators, 615-617
 Overdrafts
 in bank statement, 188
 of the Treasury at federal reserve banks, 460
 Over-the-counter securities market
 middleman in, 631, 632
 nature of, 630-631
 regulation of, 631-633
 Paper money. *See* Federal reserve notes, Money—paper instruments as, etc.
 Paper standard. *See* Fiat standard
 Par of exchange
 determination of as problem of postwar reconstruction, 535
 nature of, 39, 504
 provision for in International Monetary Fund, 542-544
 variations from, 39, 504-505
 Par remittances
 problem of, 128-129
 as requirement in federal reserve clearing operations, 124-125
 statistics of banks refusing, 129-130
 Payment agreements, 530
 Personal finance companies
 development of, 589
 loans of
 procedure in granting, 590-591
 regulation of, 589-590
 statistics of, 590
 nature of, 588-589
 Personal loan departments. *See* Commercial banks—personal loan departments of
 "Pet banks," 297
 Pittman Act of 1918, 69-70
 Postal Savings System
 deposit regulations in, 609

- Postal Savings System (*continued*)**
 establishment of, 565, 607
 life of, 568
 management of, 608-609
 objectives of, 607
 statistics of, 608
 use of funds by, 609-610
- Post Office Department**
 international money order of, 485
- Price levels**
 adjustment of under gold standard, 40-41, 45
 of agricultural commodities, 375
 experiment in 1933 to raise, 74-75
 parity of under gold standard, 40-41, 41-42
 relation to value of money, 373-379
 stability of
 under bimetallic standard, 52
 under gold standard, 22-24, 26-27
 proposed policies to produce, 425-427
 wholesale, 374
See also Index numbers of prices
- Price-specie-flow mechanism.** *See* Gold movements—theory of
- Primary reserves.** *See* Reserves—primary
- "Proclaimed List of Certain Blocked Nationals,"** 526
- Production credit associations**
 loans of, 645, 648-649
 organization of, 648
 source of funds of, 649
- Production credit corporations**
 establishment of, 566, 647
 functions of, 647, 648
 life of, 568
 organization of, 647-648
- Promissory notes**
 as credit instruments, 96
 excluded from classification of money, 117-118
 as loan instruments, 253, 255
 as "open-market commercial paper," 272
 use of in international finance, 486
- Prospectuses,** 622-624
- Pump-priming expenditures,** 465-466
- Purchasing power parity, theory of**
 limitations of, 510-511
 modification of, 511
 nature of, 508-510
- Quantitative and qualitative aspects of monetary policy,** 418, 433
- Quantity theory.** *See* Value of money—transactions theory of
- Rates.** *See* Discount rates, Foreign exchange rates, etc.
- Ratios**
 of capital to deposits, 192
 in credit analysis, 261
 mint, 51
 of prices received to prices paid by farmers, 375
 of reserves to liabilities, 210, 211, 222
- Real estate**
 in bank statement, 189-190
See also Mortgage banks
- Real-estate credit**
 borrowers, lenders, and middlemen concerned with, 657-658
 characteristics of, 656-657
 of commercial banks, 258, 264
 extension of federal facilities to provide, 665-666
 statistics of, 658
- Receivables.** *See* Accounts receivable, Book accounts
- Receivership of insured banks,** 178-179
- Reconstruction Finance Corporation**
 bank examinations of, 165
 capital funds of, 305, 572-573
 employment of federal reserve banks as fiscal agents by, 362
 establishment of, 305, 566, 572
 management of, 572
 operations of
 aids to agriculture, 575
 assistance to miscellaneous private business organizations, 573-574
 assistance to other federal agencies, 575
 assistance to privately owned financial institutions, 573
 assistance to state and local governments, 574-575
 wartime, 575-576
 powers of, 305, 573-576
 scope of activities of, 570-572
 statement of, 571
 statistics of loans of, 568, 571
 subsidiaries of, 567, 576
- Rediscount rates.** *See* Discount rates
- Rediscounts.** *See* Federal Reserve banks—discounts and advances of
- Regional agricultural credit corporations,** 639
- Registration statements**
 for broker-dealers in over-the-counter market, 632
 for new issues of securities
 content of, 621-622
 "effectiveness" of, 622
 issues exempt, 622
 significance of, 622-624
 statistics of, 623
 for securities listed on stock exchanges, 630
 for stock exchanges, 629

- Regulation T, 252
- Regulation U, 252
- Regulation V, 363
- Regulation W, 253 *n.*
- Remittance charges, 124, 128-129
- Repurchase agreements
 - on bankers' acceptances, 271
 - on treasury bills, 355-356
- Reserve Bank of South Africa, 324, 326
- Reserve cities, 218, 332
- Reserve requirements. *See* Reserves—primary
- Reserves
 - primary
 - authority of Board of Governors respecting, 215-216, 217, 218, 444-445
 - in bank statement, 185-186
 - computation of required, 216-217
 - criticism of present requirements, 219-220
 - defective arrangements before 1913, 213-215, 300
 - history of legal requirements in United States, 212-215, 445-447
 - importance of, 209, 211
 - as key in process of demand deposit expansion, 211, 221-228, 445
 - nature of, 209
 - need of, 211-212
 - penalties for deficiencies in, 217-218
 - present legal requirements, 216
 - proposal for 100 per cent, 241-244
 - ratio to liabilities of, 210, 211, 222
 - reports concerning, 217
 - sources of, 229-240, 435, 439, 453-454, 457, 458, 459, 462
 - statistics of, 210, 230, 232, 246
 - secondary
 - in bank statement, 186-188
 - nature of, 265-268, 269, 272, 274-275, 279-280
 - need of, 265-266
 - tests for, 266-268
- See also* Excess reserves, Federal reserve banks—reserves of, Gold reserves, etc.
- Reserves for contingencies, 191-192
- RFC Mortgage Company, 567, 666
- Riksbank of Sweden, 321, 322
- Rural Electrification Administration
 - establishment of, 567
 - loans of
 - scope of, 655
 - statistics of, 568
- Safety-fund banks, 107, 297
- Sales finance companies
 - charges of, 585-586, 587, 588
 - development of, 582
- Sales finance companies (*continued*)
 - discount and purchase of book accounts by, 587-588
 - government regulation of, 583
 - nature of, 581
 - organization of, 582-583
 - purchase of retail installment paper by, 583-586
 - sources of funds of, 588
 - "wholesale" and "industrial" transactions of, 586-587
- Savings and loan associations
 - development of, 659
 - government supervision of, 662
 - insurance of shareholders' accounts in, 671-673
 - loans of, 661
 - management of, 661-662
 - membership of in Federal Home Loan Bank System, 668-669
 - nature of, 659
 - shares of, 661
 - statistics of, 660, 669
 - theory of operations of, 659-661
 - See also* Federal savings and loan associations
- Savings Bank Trust Company, 606
- Savings banking
 - functions of, 599
 - nature of, 90, 600
- Savings banks
 - classification of, 599-600
 - functions of, 599
 - loans of, 604, 612
 - See also* Commercial banks—savings departments of, Mutual savings banks, Postal Savings System
- Savings departments. *See* Commercial banks—savings departments of
- Savings deposits. *See* Time deposits
- Second War Powers Act of 1942, 357-358
- Secondary reserves. *See* Reserves—secondary
- Securities. *See* Investments
- Securities Act of 1933
 - registration statements and prospectuses under, 621-624
- Securities and Exchange Commission
 - authority concerning
 - registration and supervision of stock exchanges, 629-630
 - registration of securities, 621-624
 - regulation of over-the-counter market, 632-633
 - composition of, 621
 - establishment of, 621
- Securities Exchange Act of 1934
 - margin requirements in, 252, 276, 447-448

- Securities Exchange Act of 1934** (*continued*)
 registration of securities listed on stock exchanges under, 630
 registration of stock exchanges under, 629
 regulation of over-the-counter market under, 632-633
- Security affiliates of commercial banks**, 156, 288-289
- Security exchanges.** *See* Stock exchanges
- Seigniorage**
 monetization of, 458
 nature of, 29
- Seligman, Edwin R. A.**
 on installment selling, 581
- Selling group**, 618-619
- Service charges**, 128-129, 193-194
- Service transactions in balance of payments**, 475-476
- Servicemen's Readjustment Act of 1944**
 guaranty of loans under, 259
- Sherman Silver Purchase Act of 1890**, 68
- Ship Warrants Act of 1941**, 521 *n.*
- "Short selling,"** 276, 448-449
- Sight bills.** *See* Foreign exchange—instruments in
- Sight rates.** *See* Foreign exchange rates
- Silver**
 free market in bimetallic system, 51
 history of as money, 11-13
 international agreement of 1933, 81
 ratio to gold
 changes in during 1870's, 67
 in period of First World War, 70
 in United States monetary stocks, 82
 See also Mint ratio
 reserves of in United States, 82
 sale and loans of by Treasury during Second World War, 82
- Silver certificates**
 issuance in United States, 67-68, 457
 proposed elimination of, 84-85
 statistics of, 85
- Silver purchase acts**
 Bland-Allison of 1878, 67
 June 19, 1934, 81
 July 6, 1939, 82
 July 31, 1946, 82-83, 457
 Pittman of 1918, 69-70
 Sherman of 1890, 68
- Silver standards**, 59
- Small loan companies.** *See* Personal finance companies
- Smaller War Plants Corporation**, 567
- Snyder, Carl**
 general price index of, 383, 428
- Specialists**, 627-628
- Specie Resumption Act of 1875**, 66, 67, 68
- Speculative use of credit**, 430-431, 450-451
- Stabilization funds.** *See* Exchange stabilization funds
- Standard and Poor's Corporation**
 daily commodity price index of, 383
 security price indexes of, 384
 security ratings of, 287
- Standard coins**, 18, 28, 51
- Standard money**
 change in classification of, 19-20
 definition of, 18
 in fiat system, 55
 in present monetary system of United States, 84
- Standard of deferred payments**, 9
- Standard of value**
 application of, 8-9
 British sterling as in American colonial period, 60
 defective character of, 8
 international, 37, 38
 money as, 4, 7-9, 37, 38, 377
 provision for
 in Gold Reserve Act of 1934, 77
 in Gold Standard Act of 1900, 69
 in International Monetary Fund, 542
- State-chartered banks**
 branches of
 foreign, 154
 regulation of, 148-149, 151-153
 statistics of, 153
 capital stock of
 double-liability feature of, 143
 legal requirements of, 141-142
 development of in United States, 296-297, 300, 310-311
 eligibility for membership in Federal Reserve System, 340
 government supervision of, 159-160, 162, 165, 166-167, 176
 notes of
 history of, 106-107
 taxation of, 107
 number of, 297, 300, 310
 suspensions of, 304, 307, 311
See also Member banks, Nonmember banks
- Sterilization of gold**, 454-456
- Stock Clearing Corporation**
 determination of call loan renewal rate by, 277-278
- Stock, corporate**
 as collateral for bank loans, 256-257, 286
 excluded from class of credit instruments, 96-97
 investments of member banks in, 286
- Stock exchanges**
 location of, 624, 629
 regulation of, 629-630

Stock exchanges (*continued*)

services of, 624

See also New York Stock Exchange

Store of purchasing power, 10

Subsidiary coins

establishment of in United States, 64

nature of, 19, 29

statistics of, 85

Suffolk-Bank system, 107, 297

Surplus

of commercial banks, 141, 142, 191

of federal reserve banks, 336-337, 369

Taxation

effects upon bank credit, 461-462

Telegraphic transfers

of federal reserve banks, 365-366

in foreign exchange, 482

Ten per cent rules

on investments of member banks, 285-286

on loans of national banks, 262-263

Thomas Amendment. *See* "Inflation Amendment"

Time deposits

in bank statement, 190

distinguished from demand deposits, 190, 217

excluded from classification of money, 116 as "potential money," 116-117

reserves for

development in United States, 213-217

reports of, 217

T-loans, 259, 363

Trade acceptances, 255-256

Trade drafts

classification of

clean, 494-495

documentary, 495-496

definition of, 494

use with authorities to purchase, 496

Transactions theory. *See* Value of money—transactions theory of

Travelers' checks, 190, 484-485

Travelers' letters of credit, 483-484

Treasury

as agency of monetary policy, 418-419, 452-453

cash holdings and deposits of in relation to bank reserves, 229-232, 235-236

central banking operations of, 298, 316, 459

handling of cash of by federal reserve banks, 360-361

monetary policy of

borrowing and repayment, 462-465

currency issues, 457-459

expenditure, 465-466

management of gold reserves, 453-457

Treasury (*continued*)

monetary policy of (*continued*)

management of working balance and

other funds, 459-461

scope of powers of, 453

taxation, 461-462

outstanding currency in relation to bank reserves, 229-232, 234

subscriptions to stock of federal savings and loan associations, 663

Treasury notes of 1890

gold reserve for, 69

provision for, 68

statistics of, 85

Treasury obligations

bill purchases by federal reserve banks under repurchase option, 346, 355-356, 359, 443

as collateral for advances by federal reserve banks, 285, 349, 350, 352

as collateral for federal reserve notes, 110-111, 114, 239

as collateral for national-bank notes, 108, 299

direct sale of by Treasury to federal reserve banks, 357-358

handling of by federal reserve banks as fiscal agents, 361

investment in

by commercial banks, 279, 282, 284-285

by Federal Deposit Insurance Corporation, 174

by mutual savings banks, 605

by Postal Savings System, 609-610

by production credit associations, 649

nature of, 279

problems of commercial bank investment in, 284-285

statistics of interest and discount rates upon, 267

volume outstanding, 275

Tripartite Agreement of 1936, 529

Trust companies

eligibility for FDIC insurance, 174

eligibility for membership in Federal Reserve System, 340

loans on farm mortgages of, 637

loans on urban mortgages of, 664

Trust departments, 303, 342

Trust Indenture Act of 1939, 616

Trust receipts

in foreign exchange, 488, 490

as security for bank loans, 257

Uncollected items

of commercial banks, 186, 214, 217

of federal reserve banks, 368

- Underwriting
 - nature of, 615-616
 - procedure in, 617-618
- Underwriting syndicate, 617-618
- Undivided profits
 - of commercial banks, 191
 - of federal reserve banks, 369
- Uniform Negotiable Instruments Act, 120-121
- Uniform Small Loan Law, 589-591
- Unit banking
 - definition of, 146
 - prevalence of in United States, 146-147
- United Nations Monetary and Financial Conference of 1944, 539
- United States Housing Act of 1937, 665, 677
- United States Housing Authority, 567, 568 *n.*, 677
- United States notes
 - depreciation of, 65-66
 - issuance of, 65
 - proposed elimination of, 84-85
 - provision for redemption of, 66, 69, 328
 - statistics of, 85
- Value of money
 - cash-balance theory of
 - demand for money in, 394-395, 396-397
 - equation of exchange in, 395-396
 - relationship to transactions theory, 397-398
 - supply of money in, 394
 - importance of, 373-377
 - income theory of
 - changes in price level in, 410-412
 - consumption and saving in, 404-405
 - creation and destruction of money in, 410
 - determinants of income velocity in, 402-403
 - hoarding and dishoarding in, 408-409
 - income velocity in, 401-402
 - investment in, 405-406, 412
 - major propositions of, 399-400
 - money income and purchasing power in, 404
 - money income and real income in, 400-401
 - multiplier in, 412-413
 - neutral money in relation to, 431-432
 - role of interest rates in, 406-408
 - saving and investment in, 406
 - Value of money (*continued*)
 - measurement of
 - in terms of many types of goods, 378-379
 - in terms of single commodity, 377-378
 - use of index numbers in, 379-385
 - stabilization theories of, 425-427
 - transactions theory of
 - changes in magnitude of determinants in, 393
 - composition of quantity of money in, 387-388
 - determinants of quantity of money in, 388-389
 - determinants of velocity in, 389-390
 - equation of exchange in, 391-393
 - as "quantity theory," 392 *n.*
 - relationship to cash-balance theory, 397-398
 - statement of, 392
 - statistical verification of, 393-394
 - velocity of money in, 389
 - velocity of trade in, 390-391
 - Veterans Administration
 - insurance and guaranty of loans by, 259, 264
 - V-loans, 258-259, 363
 - VT-loans, 363
 - Wage assignments, 591
 - War Damage Corporation, 364
 - War Department
 - authority to guarantee loans, 258-259, 362-363
 - War Housing Insurance Fund, 676-677
 - War loan accounts, 174 *n.*, 216 *n.*
 - War loan depositaries, 460
 - War Production Board, 521 *n.*
 - War Shipping Administration, 521 *n.*
 - Warren, George F.
 - gold-buying plan of, 74-75
 - White plan of monetary reconstruction, 538
 - Wildcat banking, 296-297
 - Williams, John H.
 - key-currencies plan of monetary reconstruction of, 538
 - World Economic Conference of 1933
 - international silver agreement of, 81

